

FORMS *of* DWELLING

20 YEARS OF TASKSCAPES IN ARCHAEOLOGY



Edited by Ulla Rajala & Philip Mills

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Forms of Dwelling

20 Years of Taskscapes in Archaeology

edited by

Ulla Rajala and Philip Mills

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Front cover: A postcard with a view of Odda and Sørfjorden from c. 1890–1900 (Library of Congress).

Back cover: From left: River Shannon (K. Driscoll); fishing cottage on the headland Keimiöniemi (T. Äikäs); part of the quarried diabase dyke at Stakalleneset (A. J. Nyland).

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Chapter 1

Introduction: from taskscape to ceramiscene and beyond

Ulla Rajala and Philip Mills

20 years of taskscapes

Tim Ingold's seminal paper 'The Temporality of the Landscape' was originally published in *World Archaeology* in October 1993. That paper was based on a presentation he had given in the session 'Place, time and experience: interpreting prehistoric landscapes', at the Theoretical Archaeology Group (TAG) conference at the University of Leicester in December 1991. Thus, it was fitting that TAG was also the venue chosen for a 20-year anniversary session of this article's publication. Organised by Philip Mills (University of Leicester) and Ulla Rajala (Stockholm University), the '20 years of taskscapes: from temporalities to ceramiscenes' session took place in the Bournemouth TAG in December 2013.

The original idea for the 2013 session came from Rajala who had used the concept of taskscape in her PhD (Rajala 2002) and was interested in the development of the concept in the two decades since its inception. The concept of the taskscape and how it may be applied to incomplete archaeological datasets was very much at the heart of the idea of the 'ceramiscene' that Rajala has been developing with Mills since 2008. Mills and Rajala were fortunate to get Tim Ingold himself to give the keynote paper, a revised version of which is published in this book (Chapter 2).

Due to the coincidence of Rajala's postdoctoral position at Stockholm University with the Nordic TAG held there in Easter 2014, Rajala and Mills organised a complimentary session 'Landscapes of temporalities and activities' for that conference. Both the Bournemouth and Stockholm sessions were attended by a wide range of specialists with broad interests. The enthusiasm in the topic has grown, so we are able to invite a few papers that were not given at the original sessions to fill in lacunae in how Ingold's work has influenced archaeologists and anthropologists of different periods.

The importance of Ingold's paper can be assessed using Google Scholar (as Rajala did in November 2014). Ingold's original *World Archaeology* article was published in

the thematic issue ‘Conceptions of Time and Ancient Society’. The same issue from October 1993 had several articles from a range of important researchers and archaeological theorists, but none of the other articles has had such a wide impact (Table 1.1) and lasting influence in archaeological research – as the reminder of this introduction and the whole volume show. The comparison of the number of references to the different articles in the *World Archaeology* issue in Table 1.1 nicely demonstrates the volume of importance.

This introduction starts with an exploration of Ingold’s initial idea of the taskscape, and the biographical context which helped form the concept. This is followed by an overview of how the concept has been used and developed over the last couple of decades. The next section details some current uses of the concept, especially Mills and Rajala’s (2011a) ‘ceramiscene’ and attempt to model archaeological interactions within the landscape using ceramic markers for the departed agents. Finally, there is an overview of the papers gathered for this book.

Table 1.1: The bibliometrics of the different articles published in the World Archaeology Volume 25, Issue 2 in Google Scholar (11 November 2014)

<i>Author</i>	<i>Citations</i>
Rowlands	215
Ingold	1111
Murray	21
Criado Boado & Penedo Romero	14
Bailey	23
Mizoguchi	71
Barrett	25
Dietler & Herbich	31
Cooper	6
Hodder	44

Ingold’s landscapes and taskscapes

Ingold’s (1993) thinking was based on the belief in the unity of archaeology and social anthropology. In a landscape context this approach makes a difference between permanent features and temporalities. Ingold (1993, 168–9) considered a landscape and its terrain together as a permanence. As a background to a human life-cycle, landscape and its features are invariant, but they are not immune to change. Flowing rivers, climate and working humans, amongst other agencies, alter the landscape as time passes. Within this Ingold’s ‘taskscape’ is basically a socially constructed space of human activity (Van Hove and Rajala 2004), understood as having spatial boundaries and delimitations for the purposes of analysis (Ingold 1993, 156–9; Mills and Rajala 2011a, 2). Taskscape, as well as landscape, is to be considered as perpetually in process and never finished rather than in a static or otherwise immutable state due to the passage of time. In his article, Ingold (1993) assessed the meaning of landscapes and their character as social constructs.

Landscapes are created by movement and taskscapes and their patterns of activities are collapsed into an array of ‘footprints’ (Ingold 1993, 162). Life processes and life as a process relate both to humans as an entity and the landscapes they are living in: human life has its counterpart in the formation of a landscape through living.

Ingold (1993, 162–4) advocated a ‘dwelling perspective’, where a taskscape is created through continuous interactivity between landscape and humans. A landscape is thus actively transformed, but this happens both consciously and unconsciously. We are observing a landscape as an end result of cumulative actions at a specific moment.

For Ingold (1993, 157) temporality is neither chronology nor history but duration. He is not interested in describing regular systems of dated intervals, but in the conceptualisation of a merged time where temporality and historicity are not opposed but lived through in the experience of the human actors who are involved in the process of social life. This is logical from the perspective of those who dwell in the landscape.

Temporality is manifested conceptually in taskscapes where embodied activities are carried out by labour that brings value through the medium of social, lived in time into the landscape (Ingold 1993, 159). Ingold’s (1993, 154) taskscape is ‘qualitative and heterogeneous’, since different agents bring different values into it while the social time is constantly changing. As a consequence, different parts of a landscape are differently evaluated by the actors within it at any given moment.

The bodily experiences of the temporarily fixed setting by the actors are perpetually ongoing (Ingold 1993, 169). A landscape can thus be seen as the scene where humans are weaving in the tapestry of everyday life. The scene is not without an impact on the actions, and this is reflected in the concepts he uses: in ‘space’ meanings are attached to it, whereas in landscape they are gathered from it (Ingold 1993, 155). Thus the different characteristics of a temporal landscape provide meanings for the people who live in it. The analysis of Brueghel’s painting *The Harvesters* as part of the paper showed how these meanings are given and how they can be analysed at a certain point of time.

The features Ingold (1993, 167–70) specifies from *The Harvesters* are: paths and tracks, the tree, the corn and the church apart from the actors are transient and temporal. They can be considered only partly visible in an archaeological record, but such a suggestion gave a model for the deconstruction of a landscape. Very specifically Ingold (1993, 172) also stated that archaeology is the study of the temporality of landscape. The following section will show how appealing it has been for the archaeologists.

Interactions: archaeological success of taskscape

It seems a pre-condition to the success of taskscape and temporality within archaeology that Ingold’s career has been intertwined with interaction with archaeologists (Ingold 2001). Timothy Ingold studied at the University of Cambridge in the Faculty of Archaeology and Anthropology. Ingold himself suggested that his belief in the integration of the three fields of anthropology originates from the character of the combined first year of the Tripos at Cambridge. Before starting University, Ingold had travelled in Finland and Norway, and visited a Skolt Sámi village in Finland: this

visit later resulted in his PhD topic. His fieldwork in Finland made him interested in skill, environmental perception and human-animal relations that all merged in his idea of taskscape.

Ingold's course 'Environment and Technology' at Manchester in the 1970s informed his book *Hunters, Pastoralists and Ranchers: Reindeer Economies and their Transformations* (Ingold 1980) that had its greatest impact among Palaeolithic and Mesolithic archaeologists (Ingold 2001). Ingold has had a dialogue with archaeologists ever since profoundly shaping his conception of the relationship and closeness of the disciplines. In the 1990s, when he was applying Gibson's (1979) ecological psychology, his interests overlapped strongly with those of the postprocessual archaeologists, as outlined below, and reinforced his connection to archaeology. The concerns with time, landscape and the persistence and transformations of human ways of life unified his thinking and that of archaeologists.

Ingold was influenced by many contemporary ideas that had importance in archaeology and anthropology as well as in other humanities and social sciences. The links between perception, behaviour and landscape were crucial when one considers the subject matter of taskscape. One line of influence came from behavioural geography. Gould and White's 1974 book *Mental Maps* had introduced the idea of spatial perception from the viewpoints of different individuals and the conceptualised ideas of areas of interaction, familiarity and ignorance that geographers could map at individual and group levels. Similarly, J. J. Gibson's (1979) 'affordances', the concept describing inherent information about the values and meanings in people's environment, was influential – not the least because of the emphasis on visual perception and actions. Ingold discussed affordances in his 1992 article 'Perception of environment' that together with the 1993 article and Gibson's writings has guided theoretically aware Geographical Information Systems (GIS) research in archaeology (Llobera 1996).

Bourdieu's (1977) ideas of practice and how the cultural customs are created and maintained through practice had profound effect on postprocessual archaeology (Shanks and Tilley 1987) and created another link between Ingold's (1993) and archaeologists' thinking (cf. Johnson 1999, 101–15). Geographer D. W. Meinig (1979b) advocated the interpretation of landscapes as continuous surfaces created and maintained by the everyday lives of ordinary people, an idea that culminated in the taskscape. Meinig's anthology also discussed the biography of a landscape (Samuels 1979), the interplay between the eye and mind's eye (Tuan 1979), landscape of home and social meaning of experience (Sopher 1979) together with the traditional British landscape archaeology and interpretations of W. G. Hoskins (Meinig 1979a). All these influences emphasised the importance of experience and interaction in a meaningful place. These works were influenced by archaeologists and anthropologists and in turn influenced archaeologists both within landscape archaeology, and related fields and outside strictly archaeological applications. Ingold's whole article underlines the point that human landscapes are culturally constructed (Ingold 1991) and this argument is central to landscape archaeology (Ashmore and Knapp 1999).

Ingold's article was produced soon after the landmark publications of postprocessual archaeology: Shanks and Tilley's 'black' (1987) and 'red' (1988) books. These applied popular philosophies and approaches of the time. The *Reconstructing archaeology* (Shanks and Tilley 1987) clearly paralleled intellectually and visually Bourdieu's 1977 *Outline of a theory of practice*, whereas the *Social Theory and Archaeology* (Shanks and Tilley 1988) owed both in style and visually to Anthony Giddens's 1979 book *Central Problems in Social Theory*. This reflects the intense discourse within archaeology at the time, inspired by advances in other humanities and social sciences.

The importance of Ingold's article meant that it was included in Julian Thomas's 2001 book *Interpretative Archaeology: A Reader*. In order to assess Ingold's impact, Rajala has also collected bibliometric figures from Google Scholar for selected articles in the Reader (Table 1.2). Ingold's paper is second only to Kopytoff's (1986) ground-breaking article on the biography of things.

Julian Thomas's *Time, Culture, and Identity: An Interpretative Archaeology* came out in 1996. Its Chapter 4 starts with a quote from Ingold's (1993) article, and is the only chapter that starts with a quote. Although he does not mention 'taskscape' as such, he refers extensively to Heidegger (Thomas 1996, on motion and directionality pp. 84–6, and on dwelling p. 89), and the entire book is about temporality and temporal use of significant sites. Ingold's (1993, 162) reference to Heidegger's (1971) 'dwelling' links his thinking to Thomas's and to Tilley's 1994 *A Phenomenology of Landscape* that had a huge impact on landscape archaeology – moving it towards active perception and experience of spaces and places by an archaeologist (e.g. Brophy 1999).

Table 1.2: The bibliometrics of the selected original articles from Thomas's *Interpretative Archaeology: A Reader* (2001) in Google Scholar (11 November 2014; for Ingold 1993, see Table 1.1)

Article	Citations
Barrett: Fields of discourse	186
Hodder: Theoretical archaeology	289
Shanks & McGuire: The craft of archaeology	117
Tilley: Materialism and archaeology of dissonance	15
Hodder: Symbolism, meaning and context	29
Bender: The roots of inequality (in an anthology, 2 editions)	73+3
Johnson: Conceptions of agency in archaeological interpretation	149
Parker Pearson: Mortuary practices, society and ideology	302
Tringham: Engendered places in prehistory	94
Buchli: Interpreting material culture	49
Kopytoff: The cultural biography of things	2931
Bourdieu: The Berber house or the world reversed	94
Lane: Past practices in the ritual present	13
Richards: Monumental choreography	77

Of postprocessual archaeologists, Mark Edmonds (1997) applied ‘taskscape’ relatively early in his treatise of settlements and stoneworking in southern Britain during the transitional period into the Neolithic. He suggested that through a taskscape it is easier to understand the tempo and character of lithic routines and enable the exploration into identity, community and authority at the times of changed. Pollard (2000) used the concept along the same lines in order to explain the persistent use of the same places in the Mesolithic. Whittle (2003, 14–15) in his book on Neolithic life first considered the dwelling perspective useful in addressing the flow of life and routines, but criticised it for being of restricted use when discussing different practices or application of innovations. However, Whittle (2003, 141–61) did apply taskscape in the analysis of the surroundings of a LBK (*Linearbandkeramik*) culture house, discussing the lattice of activities and socialities connected to it.

In Ireland, Killian Driscoll applied the concept in his 2006 Master’s dissertation on the Mesolithic of western Ireland in order to combine topography and temporalities and explore social reproduction (see Driscoll 2009). Driscoll was also inspired by Graeme Warren’s (2001) PhD thesis on the Mesolithic in eastern Scotland that had also used taskscape extensively as an exploratory concept emphasising temporal rhythms. Whilst many scholars, especially those working with the Mesolithic and Neolithic, do not explicitly mention ‘taskscape’, they use very similar language and related frameworks, for example when Lesley McFadyen (2007; 2008a; 2008b), a PhD student of Whittle, discussed practices in landscapes.

Among archaeologists studying the Iron Age, Adrian Chadwick included the concept of taskscape already in the 1990s in his discussion of the Later Iron Age and Roman field systems in southern and western Yorkshire and Nottinghamshire as social landscapes that testify of human action. He considered taskscape as a concept describing in one word ‘the complex rhythmic resonances between aspects of the physical world, human acts of dwelling in this world and temporality’ (Chadwick 1997). The concept was part of the scholar’s theoretical repertoire that combined Bourdieu’s (1977) ideas of social reproduction of structure (*habitus*), Giddens’s (1984) structuralism and Barrett’s (1989) thoughts on rituals of daily life and used the package to discuss a particular case of continuity into the Roman period, reflected in maintenance or reworking of boundaries and ritual deposition of food.

In landscape archaeology Knapp and Ashmore (1999, 18) refer to Ingold (1993), but as with many others, they have not applied his taskscape concept directly, but discuss his attention to the annual cycle of human activities linked to different places and conditions in the landscape. Taskscapes link tangibly different temporalities and precise locations, making landscapes temporal through past practices and conceptualisations – both conscious and unconscious. This unison of time and space is what makes the concept of taskscape and temporalities so suitable for archaeological use. As Richards (1999, 83) has noted, Ingold (1993) has defined the phenomenology of landscapes and how they are experienced and how the same landscapes are interpreted and mutable in time and space.

Landscapes of activities were extensively studied by Doortje Van Hove (2003) in her PhD thesis that used taskscape as its key concept. Her applications were influenced by, and were an influence on, John Robb's studies on mainly Neolithic, but also later multiperiod southern Italy. The PhD was written as part of the wider project in Bova Marina, Calabria, and represented the GIS contribution to it. Robb and Van Hove (2003) published later the results of the reconstruction of land use for a hypothetical village using different agricultural strategies and the application of this model to examine the excavated sites of the project. Rajala (2002) was inspired by Van Hove's (1999) original MSc work and that led to the application of a simplified version of Van Hove's model in her own GIS modelling after reconstructing Late Bronze Age, Iron Age and Archaic diets in central Italy. Rajala and Van Hove proceeded together to organise a TAG session on theoretically aware GIS applications in 2002 in Manchester. A selection of papers from this session was later published as a themed section in *Internet Archaeology* (Rajala and Hove 2004).

In his 2007 book *The Early Mediterranean Village* John Robb discussed extensively the theoretical foundations of socially reproduced landscapes and the results of Robb and Van Hove's collaboration on taskscapes (Robb 2007, 98–107). This finishes with a conceptualisation of a multi-layered multi-scale Neolithic southern Italian landscape where taskscape was equalled with the catchment or territory of a village or neighbourhood with a reference to wider social space within the geographic area of the same cultural group and areas of social difference where the other people live (Robb 2007, fig. 23, 116–18). Whereas Van Hove's work discussed the Neolithic agricultural taskscapes, Michelaki *et al.* (2014) contributed to the analysis of ceramic taskscapes of the Bova Marina project. The description and analysis of the case studies and their landscapes at Umbro and Penitenzeria are very similar to the examination and deconstruction of agricultural landscape at Umbro by Doortje Van Hove (2004).

This introductory article has discussed a few key contributions to the archaeological study of taskscapes. Taskscapes and temporalities are a reoccurring presence in today's archaeological literature. Their use is persistent in the studies related to the Neolithisation (*e.g.* Amkreutz 2013). Similarly, the 2014 volume from Çatalhöyük edited by Ian Hodder, *Integrating Çatalhöyük*, includes an article on the landscape and taskscape there (Charles *et al.* 2014). The application of taskscape is not restricted to European or Mediterranean archaeology, and, for example, John H. Walker (2011) has applied the concept to South American agriculture. Nor are the applications restricted to land: the 21st century has seen an increasing interest in seascapes (see Cooney 2003).

Taskscapes do not only exist in archaeology and anthropology–landscape discussions have entered other related fields. *Taskscape* was the name of the 2011 art installation and exhibition at The Collection in Lincoln by Kate Genever and Adam O'Meara. The archived programme and the abstract of their exhibition in the Lincoln Repository (<http://eprints.lincoln.ac.uk/3976/>) states that they explore ideas related to landscape, livelihood, and dwelling and that they try to challenge and create new

and alternative ways of interacting with our local landscape. The context is art, but the language is Ingold's language, shared with archaeology.

Recent developments

As Ingold himself moved on in the 2000s and concentrated on paths (Ingold 2007) and meshworks (Ingold 2011), embracing the mobility and unpredictable interconnectivity of life, many of those who have followed his writings and thinking have moved along a similar path. Adrian Chadwick's (2016) most recent work builds up heavily on the idea of meshworks and/or assemblages, referenced with the Actor Network Theory and emphasising the ways objects are an active part in wider interactions between people and things. These theoretical discussions present a further archaeological development of Ingold's thinking and show his ongoing relevance in archaeology. Taskscape is not totally forgotten though, but mentioned as one component of 'densely tangled connections, temporalities and flows of agencies and energies' (Chadwick 2016, 13).

From their part Mills and Rajala are attempting to address specific archaeological questions involving materiality and method using the 'ceramiscene' to add theoretical and methodological refinements to a taskscape in order to characterise dynamic landscapes. A *ceramiscene* (Mills and Rajala 2011a, 2) is defined 'as the landscape that is created, manipulated and experienced by the manufacturing, usage and disposal of material of deliberately fired clay'. As detailed by Rajala and Mills in this volume, this concept develops Lynch's (1960) urban elements (Nodes, Paths, Edges, Districts and Landmarks) into basic analytical categories in a wider landscape characterisation. In its '*ceramiscene*' form the related methodology applies pottery analysis as fully as possible, including fabric and functional analysis. Mills and Rajala (2011a, 2) have suggested that this concept could be developed into a research tool when analysing other landscapes of production, such as '*lithoscene*' (lithics) and '*sideroscene*' (iron).

Rajala and Mills (2011a; 2011b) suggested reading the distinctively constructed Roman rural landscape with Lynch's (1960) elements in order to conceptualise the relationships between physical landscape, cultural constructs and surface survey material. Mills (2006; 2013) had already used this concept, of the legibility of the city, for reading the use of ceramic building materials in and the *roofscape* of the ancient city. Similarly, they could be used to read structured rural landscapes, such as the landscapes of production.

The term and concept of '*ceramiscene*' emerged originally from discussions by Mills with fellow postgraduates at the University of Leicester in 2001 of considerations of landscapes created by sheep. Different grazing systems, their environmental impact and socio-economic development of grazing landscapes are all themes in contemporary historic landscape studies (e.g. Melville 1997; Poschlod and Wallis DeVries 2002). Ingold (1993, 156, 164, 167) too had emphasised the activities of animals alongside the humans as the actors in landscapes. '*Ceramiscene*' also chimes

with Crutzen and Stoermer's (2000) 'anthropocene', the suggested term for the latest period in the Earth's history when the human activities have affected the environment. These concepts emphasising active alterations and actions within landscapes are thus part of the contemporary intellectual climate and the backdrop to the development of 'ceramiscene'.

These ideas evolved into the 'ceramiscene': aspects of the landscape, which can directly be attributed to the production, use and discard of deliberately shaped and fired clay. This is an actively modified landscape; clay needs to be dug, prepared and worked. Fuel must be harvested, and indeed grown, and kilns prepared. Space also must be allocated for the drying of products. Obviously, as a ceramics industry becomes large, as was the case in the Roman times, its impact on the landscape becomes so much the greater.

Hence the finished products, being archaeologically robust, are good indicators of their contemporary cultural usage. In fact so much of that landscape has been reconstructed based on ceramic evidence: routes of supply, where and how they are used, where and how they are deposited. This is only ever going to be a partial construction – so much else has been lost through the ages – that explicitly acknowledging that in our discourse is always worthwhile. Hence the term 'ceramiscene' that merges words 'ceramic' (Greek 'keramos') and theatrical scenery (Greek 'skene').

Since a ceramiscene is defined as the way ceramics are produced, used and distributed at any given time, similarly to a taskscape, it is constantly in flux, even if there can be long periods of stability in supply and consumption. Pottery, the most consistently datable material in archaeology, is found in certain locations in a landscape. Production, usage, disposal, recovery and analysis create a continuous process that relates to certain places, areas and regions both in the past and present.

Ingold's example, the painting *The Harvesters*, presents a frozen moment. By analogy, one can consider the chronological aspects of pottery distributions frozen at particular times of disposal and recovery. Similarly, the fuzzy nature of the way pottery can be interpreted and given a date range lends itself to studying a dynamic process. Archaeological survey projects, unlike normal archaeological excavations, produce qualitative and quantitative chronological data across considerable areas (cf. e.g. Launaro 2011, 105–43) that can be used to assess temporalities. Nevertheless, the quality of the data depends on different formation processes and the optimal collecting conditions cannot always be guaranteed (cf. e.g. Francovitch and Patterson 2000; Patterson 2006, 17–24). Archaeology can produce chronologically meaningful distribution maps, even if these time slices have been heavily criticised at times, including variable chronological precision and fuzziness (cf. Gaffney and van Leusen 1995; Witcher 2006), since they are only as good as the finer details of the regional pottery series (e.g. Hayes 2000). Pottery distributions however provide us the best access we have to the temporal dimensions of past land use. If archaeologists recognise the biases and pitfalls, the analysis of survey material allows linking different parts of landscape to temporal patterns and activities (see Rajala and Mills 2014).

On an archaeological distribution map describing Roman countryside, archaeologists customarily define entities that are analogous to Lynch's (1960) five types of physical elements that facilitate and limit human activities and behaviour:

- Paths are the channels through which the observer customarily, occasionally or potentially moves.
- Edges are linear elements not used or considered paths by the observer.
- Districts are the sections identified by different common characteristics and perceived as having a two dimensional extent, accessible to the observer.
- Nodes are the strategic points that the observer can enter and which are the *foci* to and from which they are travelling.
- Landmarks are the point references that the observer does not enter.

Returning to Ingold's (1993) use of the *Harvesters* and combining it with Lynch's (1960) elements we can say that 'The tree', the focus of *The Harvesters*, is a Node, 'Paths and tracks' are Paths, 'The church' is a Landmark and 'The corn' is a District. 'The humans' are represented in a *ceramiscene* by a proxy, pottery. These kind of analytical concepts help to characterise the landscape, define the extent of different or overlapping activities, and to enhance our understanding of the past.

A very similar sounding 'ceramic taskscape' (Michelaki *et al.* 2014), originally discussed independently from 'ceramiscene' as 'clay taskscape', emphasises the human-landscape interactions and is related to the theoretical and methodological developments within John Robb's Bova Marina project in Calabria in southern Italy. This project and the scholars involved, including Doortje Van Hove, inspired Rajala during her PhD research. The emphasis of the ceramic taskscape is on clay provenance studies and the related methodology consists of micro-regional geological surveys, characterisation studies and laboratory test-tile experiments together with experimental pot making in the field conditions.

The ceramic taskscape (Michelaki *et al.* 2014) aims at analysing the history of human landscape interactions through the scientific study of the changing clay sources of the Calabrian Neolithic. Both 'ceramiscene' and 'ceramic taskscape' approaches aim at presenting a replicable research process the results of which can then be interpreted in a temporal context. Thus, they build upon an interdisciplinary concept and modify it into an archaeological use. A further difference that the 'ceramiscene' approach has from the 'ceramic taskscape' is by the further landscape characterisation through Lynch's (1960) elements in order to formulate a more widely applicable model to characterise and analyse temporal landscapes at different times with generalised concepts.

Current taskscapes and ceramiscenes

Returning to the concept of taskscape, in Google Search 'taskscape' as a search term bring c. 24,100 returns, whereas 'temporality' brings c. 700,000 (November 12, 2014).

‘Ceramiscene’ brings 903 returns and ‘ceramic taskscape’ 6390 returns. As discussed above, ‘ceramic taskscape’ (Kostalaki *et al.* 2014) is not equal to ‘ceramiscene’ (Mills and Rajala 2011a), but the development of overlapping parallel concepts suggests that in archaeology the development and use of ‘taskscape’ continues and will continue in the future. ‘Taskscape’ is not the only and perhaps not even the most popular concept discussed in Ingold’s original article, but it is in good health and will live for some time in different incarnations.

Following the pattern set by the original TAG session, this book starts with Tim Ingold’s own comments on the birth of the concept, its influences and afterlife (Chapter 2). This is followed by Andrew Fleming’s personal take from an archaeological point of view on the way the concept of landscape has developed within interpretative archaeology (Chapter 3); this paper contrasts with Ingold’s anthropological perspectives. Fleming discusses the task of interpreting a landscape and honours the late Mick Aston, a pillar of landscape archaeology, by emphasising the input of the holistic view of a researcher.

After the contributions of two scholars who had reached more senior positions already in the 1990s, one of the younger generation who applied the concept in their dissertations and theses, Killian Driscoll, discusses taskscape from his own perspective (Chapter 4). He explores recently discovered archaeological material from Ireland and interprets a particular western Irish landscape using taskscape as the guiding concept.

Driscoll’s contribution is followed by our own application of ceramiscene in Republican and Imperial Roman central Italy, showcasing the applied methodology (Chapter 5). It is the first in a short series of papers on the classical world: Pirjo Hamari discusses the roofscapes of during the Late Nabataean and Roman Petra and builds on Mills’s (2013) specialist work and ideas about urban experience (Chapter 6). Then Arja Karivieri examines the changing religious taskscape in Late Antique Athens when Christianity became the dominant religion (Chapter 7). After these Mediterranean case studies we move chronologically from the Stone Age to modern times in the colder climates with new contributions to the application of ‘taskscape’.

Astrid Nyland returns to the Mesolithic and discusses lithic taskscape in southern Norway (Chapter 8). In her article she advocates the use of meshworks in the study of Mesolithic lithic procurement practices as well. Then Tom Gardner and his group present the Yadlee Stone Circle Project and their approach to its Neolithic skyscape (Chapter 9). They discuss the possibility of interpreting the interaction and interconnectivity of landscape and skyscape.

Anne Drageset in her contribution contrasts Iron Age landscapes and later industrial locations of power in the same area in western Norway in order to interpret powerscapes (Chapter 10). This article bridges the northern prehistory with later periods and our own time. The final papers in the volume discuss modern era.

Caroline Phillips approaches the landscapes of Maori *pa* in New Zealand holistically using all information available and explores the suitability of ‘taskscape’ in interpreting their cultural context (Chapter 11). Tiina Äikäs returns to Finnish Lapland where Tim

Ingold did much of his early research (Chapter 12). She analyses the ritual landscapes of the Sámi using taskscape as an interpretative tool while methodically applying GIS in an attempt to understand ethnoarchaeological landscapes. Rob Clarke in his article brings us to the times of the Cold War and places and tasks related to military activities (Chapter 13). He explores the usability of ‘taskscape’ as a tool in discovering previously hidden modern practices and landscapes.

The discursive section finishes with Matt Edgeworth’s paper that takes ‘ceramiscene’ and uses it in order to mediate between the early modern landscape of production and recent excavation (Chapter 13). This paper has an original approach and intertwines Ingold’s taskscape and our ceramiscene with a flowscape, with nods towards Ingold’s later writings. Together with the other papers in this volume it shows that taskscape is still a powerful tool when trying to understand and interpret archaeological landscapes.

Finally, Professor Julian Thomas offers comments on the contents of this volume (Chapter 15). He was also present in the original TAG session in December 2013, so he has his own memories of the key papers. The selection of papers he assesses is unique in three aspects. Firstly, it brings together the creator of the concept with the original and more recent applicators. Secondly, many papers in the volume seek to develop the concept further in contemporary archaeological context. Thirdly, it expands decisively the use of taskscape as a tool to more unusual fields; many earlier applications were within Mesolithic and Neolithic archaeology, whereas this volume contains several articles from classical, historical and contemporary archaeology. This shows how taskscape as a tool transcends archaeological temporality and can incorporate or lead to several methodological and interpretative approaches helping to understand the interactions between humans and their different environments in different cultural situations.

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Chapter 2

Taking taskscape to task

Tim Ingold

I

Many years ago – it must have been in 1990–1 – I found myself in front of a large class of students at the University of Manchester, attending their first lectures in social anthropology. I was trying to explain to them what the subject was about. Social anthropology, I said, is the study of social life in all its variety. But social life, since it is the ocean in which we all swim, is not something we can readily grasp. How could I instil into the students the special kind of apperception that would hold a mirror to the world in which they could see reflected the play of lives lived in association? How could I get them to recognise the social not as an add-on to their separate existence as individuals but as the very matrix from which all human life springs? Then I remembered having once seen a painting by Pieter Bruegel the Elder, entitled *The Battle Between Carnival and Lent*. The painting, dating from the mid-sixteenth century, depicts a teeming medley of activities in a busy market square in Flanders during festival time. Between the inn on one side of the square and the church on the other, and populated by men, women and children of every conceivable shape, size and condition, all social life is there: buying and selling, begging and the giving of alms, fish-mongering and butchery, food preparation of every kind, play-acting and music-making, gaming and dancing, singing, shouting, and fornication (Fig. 2.1). This, I thought, would be the perfect illustration for my next lecture. I loaned a slide of the painting from the University's Department of Art History, and had it projected on the screen of the lecture theatre. 'There', I announced proudly to the assembled mass of gawping students; 'that is social life, and it is what we social anthropologists study!'

I no longer have my lecture notes and cannot recall exactly what I said next, but it was along the following lines: that this is not a painting of a landscape. Typically, the landscape painting depicts a world at rest, a scene whose tranquility is scarcely ruffled by the appearance of solitary human figures that are dwarfed by its immensity. *The Battle Between Carnival and Lent* is just the opposite. Not only is the depiction crowded with people, with buildings and other features such as trees relegated to the



Fig. 2.1: The Battle Between Carnival and Lent (1559) by Pieter Bruegel the Elder (Kunsthistorisches Museum Wien, reproduced by permission of KHM-Museumsverband).

background. It is also a depiction of activity. Everyone is doing something. Though the picture is silent, just imagine what it would have been like had you been present at the scene! You would hardly have been able to make yourself heard above the hubbub. Every character is engaged in some kind of task, and you can usually tell what it is from the clothes they wear, the materials they are working with, the equipment they carry, and – had you been there – from the noises they make. These tasks, moreover, are not carried on in isolation. Perhaps the beggar on all fours, howling in impotent rage at the injustice of the world, is on his own, for no-one seems to pay the slightest heed to his misery. But others are locked in attitudes of mutual attention, such that their activities, as they are carried on, continually answer to those of others. What Bruegel has painted, then, is an array of mutually responsive tasks, or in a word, a *taskscape*. Geographers may be interested in the formation and character of the landscape, but for us social anthropologists, I suggested, it is the taskscape – this array of activities that weave in and out of one another, variably in harmony and in discord – that is the focus of our attention.

I did not, in the lecture, take the idea any further. It was meant to be purely demonstrative, a way to get my point across. At the time, however, my own thoughts

were in turmoil. Indeed I remember that year of 1990–1 as one of personal depression and intellectual upheaval. What had thrown me off balance was the realisation that the world we live in cannot be neatly partitioned – as I, like almost everyone else, had assumed until then – between two domains, respectively of physical objects and intentional subjects, of nature and society. Only a few years previously, introducing a set of essays on *The Appropriation of Nature*, I had confidently asserted that for intelligent human beings, and for them alone, the objective properties of the world are revealed as such, as comprising what might be called a landscape or habitat. The animal perceives only what the objects of its world afford; humans see them for what they really are and only then – through acts of appropriation – purpose what might be done with them. And how then do humans see other humans? In acrobatics one man may stand upon another's shoulders, using his comrade as a workman treats a ladder, but it is the fact – I argued – that both men are part of a team and that the act is performed in fulfilment of a common purpose that lifts it above comparable instances of intra-species cooperation in the animal kingdom. For the human acrobat, I intimated, his colleagues are not just usable objects but fellow subjects, or *persons*, and it is this that makes their relations not just cooperative but fundamentally social. Cooperative relations are inter-objective, but social relations are intersubjective (Ingold 1986, 2–5). And as we can see from the motley activities depicted in Bruegel's *The Battle Between Carnival and Lent*, social life is no more or less than an acrobatics – more improvisatory, perhaps, and less precise in its coordination – that has spilled out and proliferated upon the worldly stage.

II

Thinking along these lines, the idea of taskscape was hardly revolutionary. It involved nothing more than the nomination of a counterpart, in the domain of society, to the idea of landscape in its application to the domain of nature. Landscape was to taskscape, then, as nature to society. But at the very moment when I proposed the term in my Manchester lectures, the foundations on which it rested were already falling apart. For having started from the entirely reasonable premise that human beings are both organisms in a world of ecological relations and persons in a world of social relations, I had come to what seemed like a thoroughly unreasonable conclusion, namely that unlike all other animals, humans live a split-level existence: half in nature, half out; half organism, half person. How can we possibly exist both inside the world of nature and outside it, in society – that is, as organisms and persons – at one and the same time? It eventually dawned on me that human beings could be both organisms and persons simply because being an organism and being a person, far from instantiating ontologically distinct conditions, are *one and the same*.¹ Quite simply, the person is the organism. Looking back, I realised that like so many others, I had been misled by the lazy habit of putting the word 'mere' before organism. This made it sound as though the organic is but a physical or material residue, what is left after everything valuable

and essential about human being has been creamed off. To say of any non-human creature that it is an organism is entirely fair: it is to acknowledge its participation in a world of living beings. To say that it is a *mere* organism, however, is to enter a claim for the human as having uniquely broken through the limits of this world, onto a superior and transcendent plane of existence denied to beings of other kinds. And it is of course this claim that sustains the division between society and nature.

Throughout the 1980s I had been teaching an advanced undergraduate course in social anthropology entitled 'Environment and Technology', later renamed 'Environment and Economy'. 'Environment' was about how human beings were caught up with organisms of other kinds in a web of life; 'economy' about how they were caught up with persons of other groups in holding and exchanging what the environment had to offer for their collective livelihood. The course was explicitly designed and presented as an exploration of the dialectical interplay between these two sets of relations, respectively ecological and social. The word landscape scarcely figured in it, save occasionally as a rough synonym for habitat, while taskscape – since I had yet to coin the term – figured not at all. Instead, the operative words were *environment* and *society*. In the literature we read for the course, there was never any suggestion that 'environment' could be anything other than the physical world of nature, nor any doubt that 'society', while perhaps resting on a natural foundation, represented an entirely different order of being. But by 1990–91, my teaching for the course had reached an impasse; that fateful year proved to be the last in which it was taught, never to be revived. The problem was this: if organism and person are the same, then how are we to understand the inhabited world? It can neither be an environment in the purely physical sense; nor can it be society in a sense that is purely sociological. Might a way forward perhaps be found in the concept of landscape? Later in that year I received an invitation from Richard Bradley to contribute to a session he was planning on time and landscape at the Conference of the Theoretical Archaeology Group to be held at the University of Leicester in December 1991, and I used the opportunity to try this idea out.

So far as I can recall, what I presented there was barely a sketch, and the real work of writing the paper that eventually became 'The temporality of the landscape' (henceforth ToL, Ingold 1993)² proceeded erratically over much of the following year. I found it monumentally difficult, not least because of my own depressed state of mind at the time. As I struggled to articulate what it might mean to inhabit a landscape in a sense at once personal and organic, intentional and vital, my throwaway idea of taskscape came back to mind. And so too did the art of Bruegel. I had on my study wall a framed reproduction, of rather poor quality, of *The Harvesters* – one of a series of twelve paintings that Bruegel produced, each depicting a month of the year. *The Harvesters* depicts the month of August (Fig. 2.2). I had picked up my reproduction from the local public library, which used to loan pictures like this and was selling off surplus stock. As I worked, I would often find myself looking up at this picture: I would imagine myself as a time-travelling anthropologist, a participant observer in



Fig. 2.2: *The Harvesters* (1565) by Pieter Bruegel the Elder (*The Metropolitan Museum of Art, Rogers Fund, 1919, www.metmuseum.org*).

the landscape it depicted.³ That the picture was of a landscape, however, was for me – at least initially – not in doubt. And yet I had used another painting of Bruegel’s, his *The Battle Between Carnival and Lent*, to illustrate my idea of the taskscape. Are these pictures really so different, I wondered? Both are by the same artist, painted only six years apart; in both, life is going on; and both depictions are anchored not only to place but also to time. Might the landscape of *The Harvesters* be a taskscape as well? And if so, could these two kinds of ‘scape’ be somehow merged? If only they could, I thought, this could solve my problem of how to understand the inhabited world of the organism-person in a way that would override or even dissolve the barrier between nature and society. The solution I eventually found was that they could indeed be merged, but only by restoring taskscape to the textures of the land, and landscape to the current of time.

III

It so happened that for reasons largely unconnected with my own intellectual travails, the early 1990s saw a noticeable upsurge of interest in landscape, both in prehistoric

archaeology and in social anthropology (see, for example, Bender 1993 and Tilley 1994 in archaeology; Hirsch and O'Hanlon 1995 in social anthropology). But unlike earlier anthropological writings on 'environment', that had largely taken their bearings from the natural sciences and especially from plant and animal ecology, the new wave of landscape studies were inspired by recent writings in cultural geography and the history of art, which drew their intellectual resources principally from the humanities. In these writings, landscape seemed to have leapt the fence that traditionally divided the physical world of nature from its imagined representations, and had come down firmly on the other side. Much was made of the alleged origins (incorrect, as it turns out) of the word 'landscape' in the use of the term *landschap* by Dutch painters of the 17th century to refer to their pictorial renderings of the scenery. It is no coincidence, moreover, that around the same time that social anthropologists began to toy with the idea of landscape, they also rediscovered an earlier preoccupation with the body. Thus instead of starting with *organisms in an environment*, as in mainstream ecological anthropology, they began to speak of *bodies in a landscape*. Did this change of keywords, I wondered, herald a decisive move from positive science to a more phenomenological approach to human environmental relations – to one that would take as its point of departure our own existential involvement in (rather than intellectual emancipation from) the world of which we speak? Or did it simply rearrange the terms of inquiry without significantly altering the ontological frame into which they were inserted? More often than not in our disciplines, conceptual substitutions that appear to indicate paradigm shifts in our thinking turn out to hide underlying continuities. The rediscovery of the 'body', it seemed, offered a case in point.

Classical social anthropology, in the tradition of Emile Durkheim and A. R. Radcliffe-Brown, used to draw an absolute distinction between the individual organism, as a concrete entity with a certain physiological and psychological constitution, and the social person as a particular position in a network of social relationships (the *locus classicus* for this distinction is Radcliffe-Brown 1952, 193–4). The organism was the answer to the question 'What are you?' (answer: a human being, subspecies *Homo sapiens sapiens*); the person was the answer to the question 'Who are you?' – one that could be answered only by giving an outline of your life history, including where you have come from and where you have been, your kinship connections, the work you do, and so on. The body was not much mentioned, but when it was – as for example in the writings of Mary Douglas (see, especially, Douglas 1970) – it appeared to be the same thing as the organism, though considered less from the point of view of its physiological functioning than from that of its use as an expressive instrument of social communication, or as a resource for metaphorical elaboration, pressed into service as a bearer of extra-somatic, symbolic meanings. Realising however that persons can exist and make their presence felt in the social world only in so far as that presence is embodied, a number of anthropologists – Michael Jackson (1983) and Thomas Csordas (1990) prominent among them – began to take the line that the body is no natural, biological object but rather the active *subject* of social relations. When

I ask who you are, your body responds as much as you do, and when you tell your life story, it is equally your body's story, since it is the body that speaks, lives, grows and ages in the company of others. You as a person and your body, claim advocates of the 'paradigm of embodiment', are one and the same. And with that, they assure us, the dualism of mind and body, that has bedevilled the last three or four centuries of western thought, is finally laid to rest.

But what, you might ask, has happened to the organism? It is apparently still there, but only as a residual, purely material entity. The 'mere' organism that had once subsumed the person now reappears as the underbelly of the body. You may be the same as your body, but beneath the body-that-you-are is a thing of flesh and blood, exercising certain basic respiratory and metabolic functions. Thus the ancient division of the human being into two parts or aspects, the social subject (person) and biological object (organism), remains as firm as ever. All that has occurred is that the body has shifted across from one side to the other. Where before it was aligned with the organism, vis-à-vis the person, it is now aligned with the person, vis-à-vis the organism. Indeed, far from softening the subject-object division, the paradigm of embodiment seems only to have reinforced it: the embodiment of the person has entailed nothing less than the disembodiment of the organism! Thus reduced to a protoplasmic mass of biological potential, the organism cannot be conceived to interact, in any sensible way, with its environment. Ecology, the study of relations between organisms and their environments, is robbed of its subject matter (see Ingold 2000b, 214–6). Not only did the realignment of the body 'mere' the organism, however; for by the same token, the revaluation of the landscape in which bodies were supposed to place themselves did the same for the environment. Where once the landscape had been imagined, like the body, as material for the expression of symbolic meanings or as a substrate for the inscription of social form, it now became an intersubjectively constituted, existential domain in which body-persons place themselves in relation to one another. Just as 'body' lent presence or comportment to the otherwise ethereal person, so 'landscape' gave material substance to what until then had been known more abstractly as 'space'. Meanwhile the environment, along with the organism, was left on the other side, reduced to the subterranean bedrock of raw physicality.

IV

Now my own thinking, as I have already indicated, was moving in precisely the opposite direction, namely towards rescuing the organism from the ignominy of 'mereness' into which it had been cast by the anthropocentric conceits of humanism, and concomitantly towards reanimating the environment as the space of human dwelling. Thus body and landscape, far from driving a wedge between organism and person on the one hand, and environment and space on the other, were for me ways to bring them together again; terms of unification rather than division. But

here we come to the crux of the matter: this unification could only be achieved by thinking of both body and landscape as essentially temporal phenomena. Neither the body nor the landscape comes in a fixed or final form, which has only to be inscribed on a formless substrate of biological and geological ‘raw material’. Both, rather, are perpetually under construction. On the side of the body, this constructive process is conventionally known as ontogenesis: literally the continual birth of being. Embodiment and ontogenesis, then, are not opposed terms, as though one referred to the growth of the organism in nature and the other to its moulding into a socially prescribed form. They are both words for the same thing, or rather the same process, namely the development and maturation of the organism–body–person in its environment. This process is incorporative, not inscriptive; its forms ever-emergent, not preordained. Look at the human figures in Bruegel’s paintings, whether *The Harvesters* or *The Battle Between Carnival and Lent*, and you can see this process going on. Here are people who, through their production and consumption, labour and pastimes, movement and rest, are growing and sustaining themselves and one another. ‘Form is the end, death’, insisted the artist Paul Klee in his notebooks, ‘form-giving is movement, action. Form-giving is life’ (Klee 1973, 269). What Bruegel has given us, in these paintings, is life.

On the side of the landscape, too, life is going on. It too waxes and wanes, heaves and subsides, with the days, seasons, years and millennia. And human organism–persons, in their bodily presence and activity, are as much a part of it as are birds, trees, crops and hills. Life is not something we choose to do but what we necessarily undergo, and to understand human doings as tasks is to frame them within these vital undergoings. Thus a task is not something you do completely of your own free will, as if you had alighted upon the world from some place beyond and owed nothing to it for your existence. It is rather what *falls* to you to do, an act to which you submit as in indeed you must submit to the world in whose form-giving processes you partake, and from which you draw your very being. As denizens of the world, our tasking is part and parcel of the world’s worlding. That is why, in the final analysis, taskscape and landscape are one. As I wrote in what I take to be the most important passage in ToL:

‘By re-placing the tasks of human dwelling in their proper context within the process of becoming of the world as a whole, we can do away with the dichotomy between taskscape and landscape – only however by recognising the fundamental temporality of the landscape itself.’ (Ingold 1993, 164; 2000a, 201)

I had introduced the concept of ‘taskscape’, in short, only to show why in the end, we do not need it. Landscape will do, so long as we bring it back to life and cease to regard it as stage and scenery for the enactment of human affairs.

In fact, long after ToL was published and largely thanks to the interventions of the historical geographer Kenneth Olwig, I realised that this revitalised and temporal sense of landscape which I was struggling to express actually comes close to the original,

pre-modern meaning of the term. I have already noted, in passing, that the common identification of 'landscape' with the scopic regime of modernity is mistaken. Far from originating with practices of scenic projection, in which landscape is a tableau to be looked at, the word is of much older provenance, having its roots in the agrarian practices of northern Europe in early medieval times (Olwig 2008). The suffix 'scape' does not come, as so many scholars have supposed, from the classical Greek *skopein*, meaning 'to look', but from Old English *sceppan* or *skyppan*, meaning 'to shape'. Thus landscape is not land looked at but *land shaped*. Medieval farmers and woodsmen shaped the land not by projects of design, as in the modern practice of landscape architecture, but by working it on foot, with axe and plough, and assisted by their domestic animals. This was work done close up, in an immediate, muscular and visceral engagement with wood, grass and soil – the very opposite of the distanced, contemplative and panoramic optic that the word 'landscape' conjures up in many minds today (Ingold 2012, 198). In this medieval sense, landscape already couples the land with the tasks of shaping: landscape is taskscape because to shape the land is to work it. In his painting of *The Harvesters*, executed on the cusp of the transition from medieval to modern sensibilities, Bruegel has given us a superb evocation of what it means for land to be thus entasked.

V

However there is something else in the picture, which I had missed. Right in the centre, in the foreground, stretched out at the foot of the old pear tree, a labourer lies fast asleep. In ToL, I had made only passing reference to this man. I imagined him snoring heavily, and that the rhythm of his snores would have jarred with everything else in the surroundings. The sleeper, then, was for me the exception that proved the rule, namely that rhythmic resonance calls for wakeful attention (see Ingold 1993, 170–1; 2000a, 207). But then, why should Bruegel have chosen to place this figure in such a prominent position? And why, despite this, did I fail to give it the attention it deserved? I now see that my preoccupation with the taskscape had caused me to conjure a world of unceasing movement and activity, and had blinded me to the imperative of rest and repose even when it was staring me in the face. In the taskscape, bodies appear to be chronically busy, perpetually in motion. Yet in life, there can be no activity without rest, and the latter deserves our attention just as much as the former. Is not sleep as crucial as wakeful activity to being and staying alive? Indeed as the geographer Paul Harrison has rightly pointed out, despite my efforts to restore the landscape to time, there is ultimately something *timeless* about my account of *The Harvesters* in ToL (Harrison 2009, 1003). A flow that allows no cessation, practice without respite, cannot give rise to time. For time to appear, practice must gain a foothold, and this calls for friction as well as flow. For things to pour forth into their surroundings, they must also periodically withdraw into themselves. The world, in a sense, must be allowed to breathe. And this leads

to another concern with which I have been somewhat preoccupied in recent years. It is about lines and the weather.

I have begun to think that every task describes a linear movement of some kind. The line may be roughly straight, such as a path cut through the cornfield, or elegantly curved, like the swish of a scythe. Together, these lines weave what I have called a *meshwork* (Ingold 2011, 63–97). Woven into the land rather than written on it, the lines of the meshwork are as intrinsic to its constitution as are threads to the constitution of cloth. Of course these lines are not only woven by human beings, for they also tangle with the lines of both non-human animals, such as birds in flight or the lumbering ox, and of plants such as tree-roots and corn-stalks. All play their part in shaping the land, in the sense outlined above. In my thinking, then, the array of tasks has largely come to be replaced by this medley of lines; taskscape by meshwork. But I have also felt increasingly uneasy about the concept of landscape. It seems to place the surfaces of the world ahead of the meeting of earth and sky wherein these surfaces are forever being formed or dissolved (see Ingold 2008, and my essay ‘Landscape or weather-world?’ in Ingold 2011, 126–35). ‘Even the sedentary peasant’, write philosopher Gilles Deleuze and psychoanalyst Félix Guattari, ‘participates fully in the space of the wind, the space of tactile and sonorous qualities’ (Deleuze and Guattari 2004, 531). As the peasant works the earth, he also labours beneath the great dome of the sky, and is subject to the mixing and folding of the soil below and the vicissitudes of wind and weather above. Indeed the very ground he treads is formed of the interpenetration of these elemental domains, where earth and sky meet and mingle in the ongoing genesis of sentient life.

Thus Bruegel’s harvesters, it now seems to me, are the inhabitants not so much of a landscape as of an *earth-sky world*. Instead of landscape and taskscape, then, we have the earth-sky and the meshwork. Whereas the meshwork is made up of lines, the earth-sky is the domain of weather. So the question for me, now, is: what is the relation between them, between meshwork and earth-sky, between lines and the weather? For while every living being stitches itself into the world along the ever-unspooling lines of the meshwork; it is also necessarily immersed in an atmosphere or weather-world. The being is in a world, to be sure, but is this world to be understood as meshwork or atmosphere? My tentative answer is that it is alternately both. As with breathing in and breathing out, inhalation and exhalation, we take in the world of earth and sky as we breathe the air and soak up its moisture, and on the outward breath we propel ourselves along our lines of growth and movement, weaving the very textures of the land as we go along. All other terrestrial creatures do the same, though in their very different ways. In short the living, respiring being is the site where atmospheric immersion is transformed into the extension of the meshwork along its ever proliferating lines. It is where the weather is turned into the furrows of the ploughman, where sunlight is turned into growing crops and wind into the harvesters’ sheaves. This alternation, fundamental to all life, is what gives to time (I have developed this argument, most recently, in Ingold 2015, 84–8).

VI

Following its birth and upbringing in ToL, ‘taskscape’ seems to have gone out into the world and enjoyed a life of its own. I have not, like an anxious parent, kept a close eye on its fortunes since it left home, though a recent search on the internet turned up a media production company called ‘Taskscape Associates Limited’, registered in Carlisle, and a Wikipedia entry which graciously acknowledges that ‘the term *taskscape* is often credited to social anthropologist Tim Ingold’. To be entirely candid, *taskscape* is a neologism I have never much cared for, and since ToL was published I have only rarely had resort to it. Not only is the word awkward to pronounce; it also seems to capitulate to the fashionable habit of turning anything and everything into a ‘scape’ of some kind: thus contemporary literature is awash with *ethnoscapes*, *mediascapes*, *technoscapes*, even *relationscapes* (see, for example, Appadurai 1996 and Manning 2009). One consequence of this multiplication of scapes has been to dilute the concept of landscape to the point where much of its meaning has ebbed away, and I regret having contributed to this by adding yet another incongruous compound to the list. Indeed, that ‘taskscape’ has had such a prolonged afterlife despite my attempts to kill it off at source by demonstrating its redundancy, has for me been a source of some astonishment. Perhaps this is what happens when a concept first introduced to do a specific job of work in the development of an argument breaks loose from its original discursive moorings and sets up on its own. All too easily, it can assimilate to the very assumptions it was brought in to dislodge.

With *taskscape*, these are the assumptions that lead us to project human social activities against a backdrop of nature. For those who think like that, *taskscape* can be a handy moniker for a descriptive account of the spatiotemporal layout of activity at a site, which is exactly how I had used it myself when, in those lectures in Manchester, I had first introduced the term. I suspect it is how it is still being used today in archaeology and (to a much lesser extent) in anthropology. We should never forget, however, that human beings, like organisms of all sorts, belong to the land: they are formed of its flesh and participate in its processes. *Taskscape* is no more and no less than landscape brought back to life. ‘Wherever anything lives’, wrote the philosopher Henri Bergson, ‘there is open, somewhere, a register in which time is being inscribed’ (Bergson 1911, 17). What should we call that register? Landscape? *Taskscape*? Either will do, though with its rich historical resonances, landscape means more to me. What we do not need, though, is both. For when all is said and done, there are not two registers for the inscription of time, but only one.

Notes

1. I first set out this position in my Royal Anthropological Institute Curl Lecture, presented in 1989. There, I argued that: ‘the process of becoming a person is integral to the process of becoming an organism; more specifically it is that part of the process that has to do with the development of consciousness. The human being, then, is not two things but one; not an individual and a

person, but, quite simply, an organism' (Ingold 1990, 220). For more on how I arrived at this view, see Ingold (2000a, 3, 172–3).

2. The original essay was reproduced, with minor revisions, as Chapter 11 of *The Perception of the Environment* (Ingold 2000a, 189–208).
3. Having completed a first draft of ToL, I sent a copy to Marcia Pointon, then Professor of the History of Art at the University of Manchester, to ask for her opinion. She was characteristically scathing. The job of the historian, she said, is to analyse the painting, and to put the work and its creator into the context of their time. It is not to pretend that you are inside the painting, along with what it depicts! I responded that fortunately, as an anthropologist rather than a historian, I can get away with such things.

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Chapter 3

Landscape archaeology and the re-humanisation project

Andrew Fleming

Not long ago, British archaeologists were distressed to hear of the much too early death of Mick Aston. His obituarists focussed mainly on his colourful and lively presence as the moving spirit of the long-running television programme *Time Team*; few mentioned his involvement – in his late 20s – in the promotion of the discipline of landscape archaeology. In the early 1970s, when ‘landscape archaeology’ was first formalised by Aston and by Trevor Rowley (1974; see also Aston 1985) – as phrase, concept and archaeological discipline – most of the land on planet Earth became the material taskscape for the landscape archaeologist. In due course seascapes also came under consideration. Within a couple of decades, however, the kind of landscape archaeology promoted by Aston and practised by his contemporaries came under a sustained and multi-faceted attack from post-modern archaeological theorists. In Britain, an upcoming generation of archaeologists was persuaded to adopt their attitude, which in due course achieved wider salience, at least within the Anglophone archaeological community. Aston and his contemporaries characterised and presented landscape archaeology as a set of investigative methods, a mode of work which delivered positivist outcomes, essentially ‘notes from the coal-face’. The younger generation chose to reject this approach. They demanded a self-reflexive approach to ‘interpretation’, which was no longer to be presented disingenuously, as the gradually revealed ‘conclusion’ of an investigation; now, the important thing was to determine the mode of interpretation explicitly from the outset. ‘I want to argue that ...’ became a regular introductory phrase. In terms of priority, ‘investigation’ and ‘interpretation’ swapped roles. As David Clarke (1973) might have put it, landscape archaeology had ‘lost its innocence’. But this process also involved an essentially political demand, which one might call ‘the re-humanisation project’. It is this which I discuss here – first, as I encountered it, inevitably in a domestic British context, and then from a wider perspective.

A view from the bridge

The landscape archaeology of Aston and Rowley was conceptualised as a combination, or ideally a fusion, of Crawford's 'field archaeology' and the 'landscape history' so successfully promoted by Hoskins in the 1950s. For Aston, landscape archaeology was a useful and necessary term for a form of fieldwork and an approach to cultural landscapes which had become second nature to him and a number of his contemporaries. Newcomers required induction and training, which he set out to provide, with 'local amateurs' most in mind. At the outset, landscape archaeology presented itself as a modest empirical practice, a sub-discipline of archaeology offering assistance to historians of landscape and especially to prehistorians, who worked without documentary sources. More ambitiously, it might claim to be a holistic discipline, in two senses. First, because its scale transcends site-by-site analysis, dealing with a relatively unchanging, seamless physical landscape, which on most time-scales may be treated effectively as a constant, displaying the closest approximation to a 'continuous record' that archaeology may hope to provide. Second, because it deploys, or has the potential to deploy, an extensive array of investigative techniques and specialist knowledges, creating productive interdisciplinary synergies and dialogues (for this view of landscape archaeology, see Fleming 1996).

Twenty years later, this concept of landscape archaeology came under attack. The event occurred soon after the wave of post-modernism which had swept through Cambridge in the late 1980s broke on the beaches of Ceredigion, or more precisely in what was then called the University of Wales Lampeter. It may be hard for those now commencing post-graduate studies to appreciate the passion, the feverish excitement, the compulsive iconoclasm of those years of permanent revolution (in those postgraduate communities where it was happening). In thin-walled buildings like the one occupied by archaeology at the University of Sheffield at the time, the rumpus was literally audible. Something of this revolutionary fervour may be gleaned from back numbers of *Archaeological Review from Cambridge*, or Baker and Thomas's *Writing the Past in the Present* (1990). By the early 1990s, the most influential of the revolutionaries were based at Lampeter. Evidently they decided that it was necessary to move beyond critique and into archaeological practice. They chose the archaeology of landscape. At the time, the excellent and late-lamented Lampeter geography department, within which archaeology had originated, contained several talented young cultural geographers whose influence was evidently significant (Thomas 1993, 44). Tilley's *A Phenomenology of Landscape* (1994), written from Lampeter, proposed a radically different, more 'imaginative' approach to fieldwork in landscape archaeology, which resulted in remarkable new claims about relationships between the megalithic tombs of southern Wales and various features of the physical landscape (Tilley 1994; but see also Fleming 1999, 2005b). Tilley also proposed a radical critique of 'traditional' landscape archaeology which apparently cleared the ground for his experiment. This was the beginning of a phase of critique, experimentation in new modes of fieldwork, and interpretive writing which one might label the New Landscape Archaeology (NLA). Curiously, no-one used this phrase at the

time; perhaps the revolutionaries were only too aware of the recent demise of the New Archaeology – a demise which they had helped to bring about.

The critical rhetoric of the New Landscape Archaeology became increasingly elaborate, and eventually quite repetitive. After 20 years or so, as the now middle-aged revolutionaries instruct those who were literally babes in arms at the time of the revolution, the post-modern, anti-positivist critique of landscape archaeology is often uncritically accepted. Followers of the literature, especially in the field of prehistory, might well feel entitled to assume that traditional landscape archaeology has become altogether discredited. I am one of those who asks whether the young cuckoo of New Landscape Archaeology should have tried quite so energetically to throw other eggs out of the nest, and whether it has really succeeded in so doing (see Fleming 2006, 2007). Here, as I have already indicated, I want to comment on what I will call the re-humanisation project, which became a central aim of the NLA taskscape. I would argue that this project has come to the end of its useful life, and that we should move on.

What do I mean by the re-humanisation project? For landscape archaeology, the key text occurs in the writing of Julian Thomas (1993, 26):

‘For Aston, the task of the landscape archaeologist appears to be to detail the titanic forces which surrounded these individuals – population levels, climate, land use patterns, technology, settlement patterns, and the organisation of focal places. The kind of ecological/systemic analysis implied sets up a huge Heath-Robinson apparatus, within which human beings have the metaphysical status of the ghosts in the machine. This is a top-down analysis which seeks to lay out a whole functioning system ... structures, fields, climate, soils are all fitted in to place, in the belief that given a totalising knowledge of all other factors the missing term in the equation, the absent human presence, must emerge. Yet this is a vain hope; the apparatus remains so much wreckage’.

With these dramatic words, landscape archaeology was accused and found guilty of de-humanising history. As a political project, this critique fared much better than a comparable attack on archaeological science, also led by Thomas, which was launched at the Theoretical Archaeology Group (TAG) conference at the University of Bradford in December 1994, and then quietly dropped. In any event, Thomas’s ‘wayward direction’ (1993, 44) helped to ensure that it would be primarily the field of landscape which would develop interpretive accounts featuring *habitus*, the dwelling perspective, archaeologies of inhabitation, personhood, and so on. Those who proposed these new approaches were attempting to bring the lived experience and agency of sentient humans back into archaeologists’ narratives, and what could possibly be wrong with that?

A critique of the critique

Thomas’s critique is itself not beyond critique. First, one wonders why it was Aston’s landscape archaeology which was selected for censure. Aston may have been highly

influential in introducing and promoting landscape archaeology, but his citation in the quotation reproduced above was always surprising, given that he was neither particularly interested in archaeological theory nor a committed processualist. Aston came across as an enthusiastic empiricist, driven by intellectual curiosity. He may indeed have deployed a wide range of methods and specialist disciplines in his work, for example at Shapwick (Aston and Gerrard 2013), but this was surely not done in a quest for some ‘vast totalising system’. I would contend that landscape archaeologists have never been under any illusion that soil studies or pollen analysis will lead to the emergence of ‘the absent human presence’, although their use is often *helpful*. Landscape archaeology aspires to be an holistic discipline; whatever narrative is being developed, richness of context will only improve it. Thomas (2008, 305) himself has noted that ‘archaeology imagines the past by placing contemporary observations and experiences into as complete as possible a reconstruction of the factors that informed their ancient counterparts’.

And why was it landscape archaeology which managed to get itself characterised as a processual disaster area, ripe for deconstruction and revolutionary change? Was the discipline somehow more ‘processual’ than other modes of contemporary archaeological activity? Surely not: landscape archaeology never embraced ‘hard’ processualism, avoiding such areas as systems theory, catastrophe theory, predictive equations, and evolutionism. It is, however, fair to say that the discipline has had a tendency to eschew theory, landscape archaeologists generally preferring to immerse themselves in ‘reading’ past landscapes rather than trying out deductive approaches or discussing the wider implications of their work. In the event, traditional, investigative landscape archaeology turned out to be rather a soft target for critique – politically, in the sense that it was some time before it got around to defending itself (perhaps because practitioners had more absorbing things to do), and intellectually, in that it turned out to be a field in which, with a little ingenuity, numerous straw men could be set up for demolition (Fleming 2006). It is also the case that by the early 1990s, landscape archaeology had become quite fashionable in Britain, giving the discipline a salience which would-be critics in search a target evidently found irresistible. Landscape archaeology, one might say, looked like an icon ready for clasting.

In the 1970s and 1980s, some landscape archaeologists were picking out patterns in the archaeological record on what one might call a ‘landscape’ scale, and discussing ‘organised’ or ‘planned’ landscapes, as they were then generally known. Confronted by the interpretive challenge posed by my own research on the large coaxial field systems of Dartmoor (and comparable phenomena in other parts of Britain) I too became involved in this discussion. From the outset of my Dartmoor work I was reminded – by Ian Hodder himself – that ‘reading off’ socio-political structures from such patterns was problematic, and that my rather inductive approach was vulnerable to ‘cognitive’, anthropologically-inspired critique. In the upshot, what I wrote about the Dartmoor reaves (summarised in Fleming 1988) was certainly exposed to this kind of challenge; in due course it was pointed out that patterned field systems may not necessarily reflect

planned landscapes (Johnston 2005). However, my approach to interpretation did not evoke titanic forces. Nor, I contend, would it be fair to characterise discussions of the causative factors potentially involved in the origins of (for example) field systems, in terms of the work of Heath Robinson. The latter was a British cartoonist (1872–1944) who specialised in ‘ridiculously complicated machines for achieving simple purposes’, as Wikipedia puts it. If anything, traditional archaeological interpretation probably over-simplifies causality, thus doing a *reverse* Heath Robinson, one might say. In relation to discussions about prehistoric ‘field systems’, it is worth pointing out that archaeologists of any stripe are given to discussing the recognition and ‘reality’ of ‘patterns’ in the archaeological record, and how such patterns are to be interpreted; the kind of things we say about them are often tentative, nuanced and provisional, and do not merit critical blunderbusses.

The ‘absence of people’

Processual archaeology, whose leading proponents, Lewis Binford, David Clarke and Colin Renfrew, were all educated initially within the natural sciences, offered an obvious critical target to those working within a humanist frame of reference (e.g. J. Hawkes 1968; Leach 1973). In fact, archaeologists have frequently wished that they had more insight into the lived experience of the people of the past – especially the prehistoric past. Historically, the New Archaeology’s ‘scientific’ approach to human cultural development was an aberration; advocates of totalising approaches such as systems theory are usually in a minority in the archaeological community, as they were even in the New Archaeology’s heyday. The inductive, empiricist archaeology from which processualists distanced themselves was certainly concerned with the issue of the ‘absent human presence’. As Christopher Hawkes famously pointed out in his ‘ladder of inference’ paper (1954), the nature of the archaeological record implied that technology was easier to deal with than social structure or religion. In the first half of the 20th century archaeologists had spent much time developing classificatory frameworks for groupings of artefacts. This was a necessary stage in the discipline’s development; however, it created a prehistoric past composed of sequences of abstract ‘cultures’; *people* were much harder to discern. Gordon Childe, who led the push for cultural classification, was well aware of this. There is a telling contrast between his regular work as a prehistorian and the imaginative freedom which he deliberately allowed himself when he wrote *The Prehistory of European Society*, not long before the (pre-meditated) ending of his life. Perhaps he had been born free but had found himself in chains? Looking back on his own career, his contemporary O. G. S. Crawford had a different take on these objectives: ‘I wanted first of all to rescue prehistoric archaeology from the dilettantism of object-worshippers, to get at the *people* of the past and their manner of living by the application of scientific method and modern technique’ (1955, 311).

At one of processual archaeology’s most celebrated jamborees, the conference entitled ‘Explanation of Culture Change: Models in Prehistory’, held at Sheffield in

December 1971, the anthropologist Edmund Leach worried about 'the absent human presence' on our behalf. 'Are you really capable of studying "people"'? he asked. 'All the ingenuity in the world will not replace the evidence that is lost and gone for ever', he said, and 'you should recognise your guesses for what they are' (1973, 768).

'People' were sidelined by the abstract theoretical constructions of hard processualism. The 'people of the past', elusive in the 1950s, now seemed unwanted too; drowned by the hum of cybernetic machines, they became so much background 'noise'. The abstract nature of processualism (especially hard processualism), and perhaps even more its political implications, ensured that when the demand for 'people' returned, it would be promoted passionately, as an ethical imperative, rather than as a desideratum, in the traditional way.

One processual idea which drew the (f)ire of the critics was the claim that it should be possible to generate 'laws of culture process', and thus make the past much more 'predictable'. Such a view of history represented the people of the past as puppets of culture process, or pawns on the historical chessboard. This involved a brusque rejection of the long-acknowledged subtleties and complexities of traditional history-writing, and at a stroke removed archaeology from the roll of historical disciplines (and humanities). The processualist position was also condemned as politically unacceptable, an affront to the idea that sentient human beings may have chosen how their history was 'made'. This, more than a desire for empathy with people of the past, is the essential force of the critical stance displayed in the long quotation from Thomas cited above – with its reference to 'titanic forces' and so on. And to judge from what they subsequently wrote, most post-processual critics were much more affronted by the political unacceptability of the processual programme than by its threat to archaeology as a historical discipline. The re-humanisation project thus became a political and humanistic imperative, not to say a priority. However, 'it can be done because it must be done' may not be the best manifesto for a historical discipline, or indeed for a scientific research project.

The re-humanisation project in action

In retrospect, the re-humanisation project assumed two main forms. Some post-processualists simply demanded their imaginative freedom, already inhibited by the assertions of empiricists like Christopher Hawkes, and now exposed to a new threat from the mechanistic forces of processualism. Losing one's imaginative inhibitions, under the licence granted by post-modernism, was a central aspiration of the humanisation project, promoted by post-processual theorists such as Shanks and Tilley. In practice, however, it was Mark Edmonds who was brave enough to take the lead (1999). To some re-humanisers writing in his 'hyper-interpretive' style, as I have called it (Fleming 2006) seemed an attractive option. The artworks which accompanied this development – sculpture, painting, performance, story-telling – allowed archaeology to make its own contribution to contemporary cultural activities and debates (as it

had done in England in the inter-war years, as the work of Helen Wickstead (in prep.) demonstrates). However, the hyper-interpretive style has not been much imitated since its introduction some 15 years ago. As I have noted elsewhere (Fleming 2006), one of its problems may be that the people that it re-creates are, perhaps inevitably, too anodyne, too UNESCO-compatible, too Everyman (Everyperson?). They seem – how can one put this? – rather too Glastonbury. To properly diversify these people, to characterise them and their cultural context convincingly, would require a much larger imaginative leap into the territory of historical fiction; as far as I know, no archaeologist has yet dared do this and call it archaeology.

The other move towards re-humanisation is very different, requiring something much more like total anthropological immersion; it evokes and takes seriously the ‘strangeness’ or ‘otherness’ of the people of the past – especially the *prehistoric* past. (The question of how closely the *degree* of past people’s otherness correlates with their distance from us in time will not be discussed here). This involves either denying the existence of Leach’s Black Box, or writing as if one has knowledge of its contents. (Leach’s Black Box (1973, 765–8) contained the social organisation of past peoples – unknowable by definition and not deducible, he maintained, from the Box’s ‘outputs’ or ‘inputs’, for example the patterns of economic activity appropriate to a given environment). To embrace otherness involves by definition an explicit attempt to distance oneself decisively from Western, post-Enlightenment rationalism, and indeed currently-accepted ‘common sense’. Progressive modes of interpretation no longer involve a perfunctory search for anthropological ‘parallels’, or analogues, undertaken after the completion of archaeological investigations; it becomes a much more in-depth endeavour. However, the legion of anthropologically-inspired possibilities opened by the serious quest for otherness risks turning Leach’s Box into Pandora’s. The search has led some archaeologists towards the idea that archaeological interpretation should involve seeing the world through the prism of personhood (Fowler 2004). However, in Melanesia and Papua New Guinea, where the concept was developed by anthropologists, personhood constitutes an elusive, subtle mode of interpretation. It gets even more complex and difficult when ‘dividuation’ is introduced, and spiritual essences turn out to be fluid, fragile, and unstable, with the propensity to break up and re-combine, moving between people and aspects of their environment in strange and unpredictable ways (at least from our perspective). To ask ‘how was personhood enacted in the particular bit of the time/space continuum on which I am working?’ seems an impossibly difficult question. The greater the distance we put between our own culturally-conditioned views of the world and past othernesses, the more intense and extreme are the challenges to our imaginations and to the credulity of our readers. As archaeologists, we become quite simply so far out of our depth that we wonder what we are doing here in the first place. We have to ask how well suited archaeology is for bringing fresh or special insights into the intimate and nuanced complexities of past human mindsets. Is this really what archaeology is for, or what it does best?

In Britain, the re-humanisation project might at least have ‘kept it local’, and turned to the extensive store of lore, myth and ritual collected and recorded from the peoples of these islands over the past two or three centuries, and to early Welsh and Irish literature. No-one seems to have taken this path in recent years, however; these days, scholars tend to recoil from the ‘window onto the Iron Age’ perspective. Nevertheless, such an exploration might open the possibility of developing more grounded, evidence-linked narratives for north-west European contexts than a trip to Papua New Guinea.

Recently, facing a choice between one direction of travel which is relatively easy and another which is all too difficult, some advocates of the re-humanisation project seem to have found a kind of middle ground. This is perhaps best exemplified by Melanie Giles’s *A Forged Glamour* (2013) which concerns the later Iron Age in East Yorkshire, and adopts what one might term a ‘soft personhood’ approach. I enjoyed this interesting, highly readable book; the personhood trope is integral to its success. In terms of the re-humanisation project, it’s hard to conceive of a better model to emulate. The author is assisted by the fact that she is dealing with numerous burial deposits, with associated artefacts. It becomes natural to develop a narrative involving the use of burial rituals as expressions of identity and of social relations, and of the work which goes into the living of lives; thus it seems that we may come relatively close to individuals and family groups. Giles is helped here by the scale at which she is able to work, and the opportunities open to her. Landscape archaeologists may be inclined to regard most of our efforts as inadequate when measured against the humanistic themes developed in *A Forged Glamour*. In much landscape work, however, the nature of the evidence makes it much more difficult to develop this kind of treatment, if one is to go beyond rhetoric. Rather than indulging ourselves in the competitive use of the archaeological imagination – forging our own glamour, one might say – we might like to consider how we may best operate to get the most out of our material, and create intellectually defensible landscape histories.

The personhood approach does at least encourage us to think more creatively about ‘the Indian behind the artefact’, and it nicely subverts the term ‘culture’, whether the latter is presented as a truism about humanity’s extra-somatic adaptation to the environment, or as a complex cybernetic abstraction. However, as a narrative trope, personhood risks being a truism. Does anyone seriously believe that humans, anywhere, anytime, do *not* spend much of their lives practising the kind of social involvement and inter-personal negotiation implied by the term personhood? How are we to represent otherness through the personhood trope, in a way that goes beyond the trite on one hand, and, on the other, the production of what amount to no more than imaginative, *sui generis* pieces of magic realism? Should we persist with a heroic post-modern radicalism, come what may, until the project runs out of steam? Or is the re-humanisation project trying too hard to answer a question which archaeologists always ask, as they should, but to which there will always be as many answers as there are archaeological imaginations? Perhaps it is time to ask a different

question: has this been a *productive* project, in itself and in comparison with other projects which we might be working on?

Re-historicisation: an alternative to re-humanisation?

Looking back, it seems to me that the closest insights into past human experience have not come from a 're-humanised' landscape archaeology, but rather from what one might call archaeological 'cameos' – discoveries like that of 'Ötzi', the man in the ice, and other cases where new forensic techniques have allowed particular insights into the eating habits or the life histories of particular individuals (and sometimes their livestock). In retrospect, it might have been better if post-processual sympathisers had responded to the less political thrust of Thomas's critique (see above), and developed what one might call a re-historicisation project. For it seems to me that 'landscape' will be more productive as an approach to long-term human history than as a way of dealing with 'the absence of people'.

From the perspective of the Early Neolithic (which has been the empirical heartland and experimental laboratory for the majority of British archaeological theorists) critics do not always appreciate the diversity and range of the contexts in which landscape archaeology is practised. As I have noted elsewhere (Fleming 2012), it may be useful to recognise four work-zones – zone 1, which is text- or anthropologically-assisted; zone 2, where linear features (including field systems, linear earthworks, and routeways) form patterns and exhibit relationships; zone 3, where 'sites' are usually found in archaeological isolation but in relatively familiar Holocene environmental contexts; and zone 4, where Pleistocene environments involve additional and increasing levels of difficulty for the landscape archaeologist (Bates and Wenban-Smith 2011). These are brief descriptions of working environments. These four work-zones happen to correspond roughly to phases of human history, but they are not meant to be mutually exclusive or defined too rigidly. From this perspective, it is already clear, I hope, that both re-humanisation and re-historicisation projects require flexible and ingenious strategies if they are to engage adequately with these highly diverse archaeological contexts. For medieval and post-medieval archaeologists, re-historicisation may seem less of an issue. However, when it comes to *long-term narratives of landscape*, the illumination provided by documentary sources is often limited or patchy; there is little room for complacency.

In re-historicising our discipline we might find it more apposite to *embrace* our distancing from the people of the past, rather than deploring it. As scholars working in primarily historical disciplines we are, after all, creating our own generation's narratives of the past. What we bring to this task, above all, is our privileged overview. It's an overview which works in more than one dimension. It involves both time and space, as well as an assessment of the value and cultural context of past work. Our perspective is provided by hindsight, by post-Enlightenment approaches, and by different spatial awareness and geographical understandings

than those of our ancestors. We may move between scales, both temporal and spatial. We may aspire to differentiate an episode which appears striking in the archaeological record from processes which may have been significant from a long-term perspective. We are well aware that past peoples didn't have maps, didn't have computers, above all didn't share our post-Enlightenment mindset. As many have pointed out, this should make us diffident when we are trying to understand or represent past mindsets. But it shouldn't stop us using the particular potential of *our own* humanity, taking the opportunities of a particular intellectual moment, or using the assets donated by the Enlightenment: intellectual curiosity, analytical thinking, the progress generated by intellectual debate, our capacity to design and carry out 'experiments'. As historians pointed out a long time ago, writing history is not in essence a quest for empathy.

I had to think about some of these issues when I was writing *St Kilda and the Wider World* (2005a). (St Kilda is a group of small islands some 60 km west of the Western Isles of Scotland, whose last 36 inhabitants were evacuated in 1930). Recently, attempting to keep up with the literature, I looked at a book by David Quine: *St Kilda Snapshots, Based on Lachlan Macdonald's Collection*, published in 2011. Based on photographs and oral history, it deals with the years running up to the evacuation, and the subsequent lives of some of the evacuees. Part of the book contains a house-by-house account of St Kilda's last families. We know what people looked like, their names (and which houses they lived in), their relationships, their *curricula vitae* (in outline at least), and even one or two anecdotes about them. Quine's book is essentially yet another collection of information for St Kilda enthusiasts (to be fair, he does not claim to be an historian). The compiler is literally putting names to the faces in old, caption-less photo albums. This material can be extremely useful, indeed valuable, as I have recently discovered; but histories written at the scale of the individual or the family always require wider contextualisation.

I have also read *Rewriting St Kilda* (Chambers 2011), the publication of a recent local conference. Several contributors deplore the fact that St Kilda's history has been written by 'outsiders'. More 'authentic' voices, it was suggested, would be Gaelic-speaking, preferably St Kildan or at least Hebridean, Christian, and ideally members of the Free Church, especially if commenting on the influence of religion in the islands' history. (Some contributors objected strongly to suggestions that Sabbath observance and related religious practices might have contributed to the community's decline). Oral testimony is potentially of great value, of course, and gives the reader a special sense of being close to the lived experience of people. But the anecdotes and memories of the last St Kildans have serious limitations; they are less illuminating than the literature of the island of Great Blasket in the west of Ireland, for example, whose inhabitants were encouraged to *write* their stories – see Fleming 2001). There is no particular reason why the St Kildans (especially those who were children or teenagers at the time of the evacuation) should have possessed deep insights into the island's culture and history – and every reason to suspect that their memories became

‘frozen’. The historian requires more than just ‘the authentic voice’; ‘outsiders’ can sift this material, put the information into a wider context, arbitrate where stories are in conflict, make allowances for bias and for those who have axes to grind – and above all, interpret them from the wider perspective of the historian or the anthropologist. In the St Kilda case, it was the curiosity and efforts of outsiders such as Quine which encouraged and brought to publication the voices of ‘insiders’, those who were actually on the island in the years leading up to the evacuation.

I am reminded here of Simon Schama’s account of the French Revolution, *Citizens*. No-one could accuse Schama of leaving people out of his account; throughout the book there are vignettes about individuals (not necessarily important politicians or intellectuals) whose attitudes and activities illustrate the context or the impact of the Revolution. Schama’s imagination is engaged in the choice of these ‘cameos’ to contribute effectively to his narrative, not in the contrived recreation of past experience and feeling. His account moves between different scales, within the social, political and intellectual fabric of France at the end of the 18th century; it is his overview, the product of the historian’s hindsight – precisely the vision which the actors in the drama did *not* enjoy – which gives the book its value.

In conclusion

More recently, Julian Thomas (2008, 301) has asserted that ‘traditional landscape archaeology and “post-processual landscape archaeology” are not complementary, alternative ways of investigating the same phenomenon’. The stark choice we are invited, apparently compelled, to make is not methodological but philosophical and (given the history) political. However, the defeat of processualism is no longer a contemporary political imperative. We no longer need to stage a confrontation, or demand a choice, between objectivity and subjectivity, between the archaeological record and the historical imagination, between investigation and interpretation, between reconstruction and representation (or re-presentation). Nowadays these are all engaged in a field of continuous and constructive dialogue, in an archaeologists’ conversation in which obsessional monologues or dialogues of the deaf have had their day. The concepts rehearsed during the debate, once apparently oppositional, are available for appropriate deployment, in accordance with arguments and situations at hand. I have already mentioned prehistoric field systems; it is worth reflecting on the limitations of a discussion about such complex phenomena if the only thing which matters is how far they relate to the re-humanisation project.

There is another ‘de-humanising’ tendency around at the moment, which has been rather overlooked. The New Landscape Archaeology has recoiled from the ‘Cartesian’ perspectives implicit in the use of maps, and has also emphasised the importance of the sensory and the experiential, encouraging us to envisage soundscapes, smellscape and so on. (Such exercises may actually be of value not because they bring us any closer to the people of the past, but rather because they may stimulate the ‘re-

wilding' of a generation of archaeologists increasingly addicted to computer screens and virtual reality). However, many contemporary students of landscape do not seem to have a problem with the widespread recourse to Geographical Information Systems (sometimes referred to as 'the digital revolution'). Of course, GIS are primarily employed as tools – for retrieval, pattern-searching, data manipulation and presentation. Nevertheless, the digitisation of data does not necessarily bring us any closer to understanding the experience of past humans walking the surface of planet Earth. Perhaps post-processual sympathisers tempted to exploit the potential of GIS should beware, lest they find themselves unsuspectingly entering another cybernetic wasteland! We have come a long way from the field archaeology of just a century ago, as practised by Heywood Sumner, whom Crawford described as 'a countryman of a type that is now practically extinct' (1955, 174).

There is nothing 'wrong', exactly, with feeling a need to 'respect' or 'do honour' to the people of the past. But at heart this issue is surely about our own *self*-respect as historians and as human beings, about how we interpret our scholarly roles, both as investigators and story-tellers. Archaeological endeavour, it seems to me, tends to require and elicit the responsiveness of careful, thoughtful archaeologists, which involves humility and diffidence as well as reasoned argument. It is surely in the deployment of the historian's perspective at its most sensitive and nuanced that we best bring respect to our ancestors ...

I believe that it is time to re-historicise, and that this would be a more productive endeavour than continuation of the re-humanisation project. As already acknowledged, the re-humanisation debate has not been without benefits. For one thing, it has helped us to recognise the distinction between landscape archaeology (as a set of field methodologies) and the archaeology of landscape, as a theme of great productive potential within landscape history. I also believe that we should be trying to develop a landscape history which attempts to characterise, understand and explain the human context of evolving and changing cultural landscapes, in all their variability, over long stretches of time and large extents of space. We need to focus on what landscape archaeology does best – *investigation*, and contributing to the creation of more thoughtful and integrated landscape histories, using evidence, argument, and imagination. In the large and inviting space between hard processualism and post-modern invention, there is a lot of work to do. Above all, we need a better understanding of the historical ecology of the human species; and in this enterprise, landscape history will have an important contribution to make.

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Chapter 4

Approaching the Mesolithic through tasksapes: a case study from western Ireland

Killian Driscoll

Positioning landscapes and tasksapes

The use of the concept of the ‘landscape’ as an analytical tool by archaeologists began in the mid-20th century, following the gradual move away from a focus on artefacts and sites to a more regional one on networks between sites. A driving force for this new regional perspective was the resources available so archaeologists could afford grander projects (Sherratt 1996). In a pre-Celtic Tiger Ireland context it is apposite that some regional projects folded partly due to financial issues (Woodman and Johnson 1996), and that the first two large prehistoric projects in Ireland – the Carrowmore project (Burenhult 1984) and the Ballylough project (Zvelebil *et al.* 1987) – were both funded by institutions from outside of Ireland. Sherratt has argued that the divergent paths of archaeology, between studying the landscape as a signature of settlement patterns on the one hand, and studying the landscape for the sake of the landscape, can be rooted back to the beginnings of archaeology as a discipline and the tensions between the Enlightenment and Romanticism:

‘whereas the Romantic archaeologist will be happy to examine his own backyard and trace its genealogy as a place, this will be regarded by the Enlightenment archaeologist as parochialism: a retreat to “parish-pump archaeology”’. (Sherratt 1996, 143)

In an analogy that he makes between an early 19th century account of a prehistoric landscape in Brittany and a TAG paper abstract, Sherratt (1996) highlights the Romantic inheritance of the phenomenological accounts in archaeology; in contrast he argues that the Enlightenment view of the landscape, the settlement pattern, is exemplified by an invasive approach to the landscape.

From this account we can see that approaches to the study of the landscape are ultimately mediated through the researcher’s or research group’s own particular training and understanding. It is repeatedly noted that the landscape is an ambivalent term, readily malleable to divergent methodologies. Further, the roots of the term are

also ambivalent, with a number of variants possible (cf. Bender 1993, 2; Berque 1997, 22; Lemaire 1997, 5). Baldly, in the western European tradition 'landscape' has its roots in an Anglo-Saxon word connoting a small-scale patch of land, 'that corresponded to a peasant's perception'; this petered out and was followed by a connotation of a larger-scale area, a political territory, in the eleventh century (Bender 1993, 2). From the beginning of the modern period, the term related to a certain perception, a gaze, which Bender (1993) argues was related to the emergent capitalist west. This relation between seeing and landscape is a powerful one, which continues to dominate the theorising and evaluating of landscapes: the perception of the environment is seen as a key ingredient in the study of landscapes. Indeed, as Bender (1993) comments, this perception of the landscape is a key arena of conflict. The dominant powers can use and naturalise the landscape for their own agendas; the allusions and portrayals of the landscape can be manifested to mask and obfuscate human relations of dominance and inequality.

The act of seeing the landscape is connected with our studying and interpreting the landscape. That the landscape, and the study of the landscape, is not neutral and can be an ideological tool is again readily apparent in the book *The Interpretation of Ordinary Landscapes* edited by Meinig (1979), a series of articles by academic geographers. In looking at how one approaches the landscape, Lewis (1979, 12) suggests that 'Americans tinker with landscapes ... and have been doing so ever since their ancestors landed at Jamestown and Plymouth and began chopping down trees'. What is immediately apparent is that in one fell swoop he has managed to wipe away some 10,000 years of Americans' history. By setting up his parameters for study, the Native Americans are immediately reduced to a non-entity; they are non-Americans, a politically inert detritus on the outskirts of society, not worthy of consideration. Even leaving aside the hunter-gatherers and their landscape use, agriculture was being practiced in north-east America, where Lewis is based, *before* it had arrived to Britain, from where the pilgrims, and his ancestors, eventually came many millennia later.

Ingold's taskscape

Ingold's (1993; 2000) approach has been picked up on by various researchers of both the Mesolithic and Neolithic periods in Britain and Ireland (e.g. Conneller 2000; Pollard 2000; Whittle 2003; Little 2005). In Ingold's (2000) collection of essays he has elaborated, while acknowledging himself a child of a western intellectual tradition, on ways of dismantling the opposition between culture and nature, mind and body, space and place. He has argued that one can adopt an approach to landscape studies that rests on the idea of the taskscape, and the temporality of the landscape. Influenced by phenomenology, he suggests that tasks are the constitutive acts of dwelling and:

'it is to the entire ensemble of tasks, in their mutual interlocking, that I refer by the concept of taskscape. Just as the landscape is an array of related features, so - by analogy - the taskscape is an array of related activities.' (Ingold 2000, 195)

Importantly, an understanding of the taskscape is founded on the acknowledgment, and rejection, of the ‘great tool-use fallacy’, which has separated social and technical domains, with Ingold (2000, 195) arguing that this separation ‘has blinded us to the fact that one of the outstanding features of technical practices lies in the embeddedness in the current of sociality’.

Ingold suggests that the landscape is the congealed form of the taskscape and uses the analogies of music and painting to draw out the relationships: like music, the taskscape resonates; the taskscape is manifested through engagement, and consists of concurrent rhythms ‘just as social life consists in the unfolding of a field of relationships among persons who attend to one another in what they do, its temporality consists in the unfolding of the resultant pattern of resonances’ (Ingold 2000, 199). Ingold (2000, 197–9) proposes that painting viewed as a process, as a performance, can be analogous to the landscape, as the landscape is never complete.

Ingold has provided a powerful concept by which to understand people and the landscape. By focusing on people in terms of their dwelling in the world, notions of a dichotomy between people’s actions, their technology, and their sociality are made redundant, as the former two can be seen as being mediated on the latter. With the taskscape being the activities of peoples’ dwelling, the landscape can therefore be understood as the ‘embodied form’ of this taskscape (Ingold 2000, 195). With cognisance to the fact that the taskscape is never ending, so the same applies to the landscape; because the landscape is continuously being created, Ingold suggests that this is why the dichotomy between natural and ‘man-made’ features is problematic: an issue highly pertinent to archaeologists, especially in terms of the creation, and positioning of monuments in the landscape, as well as in terms of the analysis of lithics (Tilley 1994, Bradley 2000). Moreover, the taskscape approach highlights the fundamental issue of the temporality of the landscape.

Whittle (2003) has highlighted some difficulties with Ingold’s approach, one being that his focus on a dwelling perspective, whereby people are attentive to the world around them, possibly overlooks how the daily routine, and indeed much of life, can be conducted on an unconscious level without the awareness and intellectualisation apparent in a dwelling perspective. He comments that cumulative effects of these unthinking and unconscious actions ‘may often be what has been called the “unintentional reproduction of structures”’ (Whittle 2003, 22). A second point that Whittle (2003, 15) makes is that the taskscape concept understates the acts of socialisation and learning, and the ‘weight of collective tradition and culture’. However, these are issues that Ingold (2000) has tackled head-on in other articles in his collection, and are therefore taken here to be implicit in the concept of the taskscape.

The Mesolithic in western Ireland – an overview

Very briefly, and generally, the Irish Mesolithic is divided into two main phases; the earliest date for the Early Mesolithic is c. 8000 cal BC (Woodman 2003), with the lithic

technology typified by a microlithic technology, as well as the use of flake, core, ground, and polished axes. At some stage in the 7th millennium, the Later Mesolithic began (Warren 2003; for debates on the chronology, see Costa *et al.* 2005; Woodman 2015), characterised by a switch from a microlithic to a macrolithic technology, with the Bann flake as the iconic tool type of this phase. These Bann flakes, however, were just one part of this macrolithic technology, and indeed, only in one sub-phase of the Later Mesolithic (see Woodman *et al.* 1999).

For a variety of reasons the evidence for, and research of, the Mesolithic in western Ireland has been low-key up until recent years (see overview in Driscoll 2006), with almost all the evidence coming from stone tools from surface collections – primarily uncovered during the artificially lowering of lake levels in western Ireland and the midlands during the early twentieth century – and findspots often amounting to just a single artefact (Fig. 4.1; Driscoll 2009a). The province of Connacht in western Ireland is bordered on the west by the extensive coastline of the Atlantic with a number of findspots along the coast, including the recent excavations of a Mesolithic (and later periods) quartz lithic scatter at Belderrig (Driscoll 2010; Warren 2009). Connacht's eastern border is defined almost entirely by the River Shannon and the Shannon system's major lakes; the Shannon watershed covers a large section of western and central Ireland, and Figure 4.1 shows that besides the coastal sites and find spots, the great majority of evidence for the Mesolithic in western Ireland has been found along the Shannon system's rivers and lakes including the large surface collections from Lough Allen and Lough Gara (Fredengren 2002; Driscoll 2009b; Driscoll *et al.* 2014). Further sites along the Shannon system include the surface collection from Corralanna, County Westmeath (Warren *et al.* 2009); the excavations of Later Mesolithic sites at Lough Kinale (Fredengren 2004) and Clonava, County Westmeath (Mitchell 1972); the Early Mesolithic site at Lough Boora (Ryan 1980); the excavations with Early and Later Mesolithic human remains at Killuragh Cave (Woodman and O'Shaughnessey 2005); and the Early Mesolithic cremations at Hermitage on the bank of the Shannon (Collins and Coyne 2003; Collins 2009) towards the south of the system. Further, as outlined elsewhere (see Driscoll 2009a, 4) there are at least 1800 ground and polished stone axes from the west of Ireland, and some, if not many, of these probably represent Mesolithic activity (Woodman *et al.* 1999; Woodman 2003; Driscoll 2013).

Mesolithic taskscapes

Death on the Shannon

Ironically, considering the dearth of evidence in the west, the clearest signs we have for the Early Mesolithic in the west is not the usual ephemeral lithic scatter that signifies a prehistoric inhabitation of an area, but the series of cremations at Hermitage on the banks of the Shannon (Fig. 4.2; Woodman 2001; Collins and Coyne



Fig. 4.1: Western Ireland, with the Shannon system highlighted, and the Province of Connacht shaded in light grey. Mesolithic findspots/sites, with those mentioned in the text numbered: 1. Belderrig, 2. Lough Allen, 3. Lough Gara, 4. Clonnaragh, 5. Urlaur, 6. Leedaun, 7. Streamstown, 8. Ballycurrin Demense, 9. Prospecthill, 10. Hermitage. Other Mesolithic findspots/sites along the Shannon system: A. Killuragh Cave, B. Lough Boora, C. Clonava, D. Corralanna, E. Lough Kinala (Illustration: K. Driscoll).



Fig. 4.2: River Shannon, looking east towards Hermitage (Photo: K. Driscoll).

2003; Collins 2009). The oldest cremation (7530–7320 cal BC) excavated contained an above average weight of bone than is usually found in excavated cremations, suggesting that the bones were carefully collected from the funeral pyre and deposited in the pit. The cremated remains were placed around a post that has been

interpreted as a grave marker, and placed against this post was a polished shale axe; chert and flint lithics were also in the pit (Lynch 2001; Collins 2009). The osteologist (Lynch 2001, 114) commented that the cremation was ‘expertly carried out’, and ‘the process of cremation would have been a considerable effort, requiring significant planning and a major input of time and effort’ – the author argued that the condition of the bones in the pit suggests that the people who undertook it were familiar with the processes of cremation.

The next evidence for burial at this site came between 15 and 25 generations later (7090–7030 cal BC). Here, the circumstances were different in that it is suggested that there is the possibility that only selected parts of the body were cremated, or only a partial amount of the cremated remains were deposited in this pit. The deposition of lithics in this pit was different from the first in that they were almost exclusively chert, and nearly half were taken to be naturally fractured pieces as opposed to flakes or blades; there was also cremated fish bone present in the pit. A third pit that may represent a cremation dates to about 20–30 generations after the second (6610–6370 cal BC): this consisted of a minute amount of bone – not identified as human – which was deposited with six flakes and blades (one flint, two chert or limestone, and the rest chert), and three small stones. For the second pit at Hermitage, it is suggested that disarticulation of the body took place, with only some of the remains cremated, or deposited in the pit. Evidence for disarticulation may also be found in regards to the Early and Later Mesolithic humans remains from the rest of Ireland (Woodman *et al.* 1999; O’Sullivan 2002); the disarticulation and movement of body parts around the landscape would seem to be a recurring theme in the European Mesolithic in general (Conneller 2009).

It is more than likely that not every person who died was treated in this manner. While this could suggest that this was the funeral of a man or woman who was considered of significance to the community for whatever reasons, it could also be indicative of a significant event in which the cremation of this person was deemed to be appropriate or necessary. Indeed, while the cremated remains in this pit were taken to represent a single individual, and hence could be seen – and in a later prehistoric context probably would be seen – in the context of the rise of the importance of the individual in society, the understanding of different concepts of personhood suggest that what we see as an individual would have been perceived differently in the past (Taylor 1992; Fowler 2004).

The funeral rites of this cremation were performed by mindful communities of practice (*sensu* Dobres 2000), and members of the community would have had their own roles to play in these rites, whether actively or passively, as participants or spectators. Funeral rites are considered key arenas in which the social values of a community are not only reflected but are also arenas instrumental in the social reproduction of the communities (Thomas 1991). However, while doing this, the rituals can be open to ambiguity, subversion, and contestation (Cooney 2000, 89). Furthermore, Howe (2000) has noted that an element of ritual that is often overlooked

is that of risk: the risk of the incorrect performance of the ritual, or the inability to control the (supernatural) forces being contended with.

The process of cremation is not a particularly practical method of the disposal of the dead and was ultimately tied up in the cosmology and world view of the community involved. In cremation, the transformative power of fire is given a central place in metamorphosing the body, and a large fire is a highly visual way of disposing with a body, seen from close by and also from afar from the rising smoke. Ingold (1986, 246) and Zvelebil (1997, 37) have noted that the world view of hunter-gatherers is often typified by a tripartite division of layers: sky, earth, and water, which are 'linked by a "cosmic pillar", or "cosmic river", symbolised in the shaman's *turu*, or a tree often placed in the centre of the shaman's tent'. At this cremation by the Shannon we see these three layers converging: the body ascending into the sky through the flames and smoke; the remains being deposited in the earth, with bone embedded in burnt clay; and these actions being carried out beside the river.

The commitment to cremate the body of this person necessitated a considerable undertaking in time and effort for a community. The process of this burial rite may have been carried out over days, weeks, or even longer. This would have involved at least the following tasks and stages, not necessarily all in this order:

- a) the preparing of the body for cremation;
- b) the gathering of the various materials for the pyre;
- c) the lighting of the pyre;
- d) the maintenance of the pyre to thoroughly burn the bones;
- e) the cooling of the fire;
- f) the inspection of the pyre's remains for bones (and other material added?);
- g) the collection of the bones and other material into containers;
- h) the post-cremation alteration/preparation of the bones (pounding/grinding);
- i) the digging of the pit;
- j) the forming of the grave marker (this may have been a feature already there);
- k) the deposition of the bones and lithics, and possibly other organic material

– all the while as people mourned, ate, slept, talked, played, took care of infants. All these processes involved differing communities of practice, and necessitated the negotiating and asserting of the power relations involved in the community: whose place was it to do step a), or who was excluded from doing step i). These communities of practice would have involved the socialisation of children into the processes, from observing the activities and the older peoples' interactions, to active exclusion or initiation in the processes involved.

A key consideration of this cremation concerns the relations that the community involved had with the landscape – the gathering of wood for the fire was not a matter of resource exploitation, but would have been tied up in their understandings of the animacy of the woodland (Ingold 2000, 144); the gathering of the mudstone, chert, and flint lithics for deposition along with the bones in the marked grave

again brought different parts of the animate landscape together with the wood and the person.

The burials at Hermitage represent evidence for burial beside the river intermittently over a period of 35–55 generations, with further evidence for probable occupation at the river bank dated to the end of the Later Mesolithic (4680–4040 cal BC; Collins 2009). This represents a persistent place in the landscape, a bend of the River Shannon where communities returned to over the generations. It has been suggested that this was a fording point on the river, highlighting that there were two axes of movement here – the crossing point of the river between east and west, and the movement up and down on the river, from the sea into the interior of the island. A key to the landscape perception of hunter-gatherers is suggested as being paths (Tilley 1994; Ingold 2000). Indeed, Ingold has commented that the image of life as a trail or path is ubiquitous amongst hunters and gatherers. Obvious pathways in the landscape are the rivers, lakes, and sea, which were traversed using boats, such as along the Shannon. But looking into the woods themselves, paths would have been of importance:

‘Some routes through the trees were long established – the track to the riverside from the tents themselves, or the route onto the floodplain for the large gatherings of the community. Other routes were trod once and once only. In a similar way old paths from a previous year’s visit towards good hunting grounds may still have been viable and could be retrodden. Possibly some spring and summer growth needed to be cut back in order to maintain important routes. Some people may have outlasted particular paths, whereas some paths had always been there. Treading the same paths as a now deceased parent, or an elder sibling now married, may have been an important part of the biography of particular individuals. Paths had differing durations and the scar of erosion created by the routines of labour may, in turn, have shaped the activity of those following. Particular routes through the trees created certain views and vistas – in a very subtle way structuring a community’s experience of the local world. Learning traditional paths, their names and the names of the features of the landscape visible from these routes were a vital part of socialisation.’ (Warren 2005, 73–4)

This eloquent quote from Warren’s book on Mesolithic Scotland highlights the embedment of humans *in* the landscape, and the temporality of the landscape. The paths were not there simply as an access way to somewhere, but rather were an integral part of the community itself. The journey itself is as important as the destination.

While at Hermitage we have a persistent place in the landscape, we must be cognisant of both the continuity and change in the communities over this period. Indeed, depending on how one views the transition to the Later Mesolithic, this time frame could represent both Early and Later Mesolithic cremations. Moreover, the landscape would have undergone considerable changes over this length of time, in terms of the changing water levels, and with the development and alteration of the composition of the woodlands. With only a small strip of the river bank excavated, it is unclear what further evidence there is for the Early Mesolithic in the area. The

closest other Early Mesolithic material are the human remains from Killuragh Cave, County Limerick. These are overlooking an eastern tributary of the Shannon, which were found with a range of lithics (Woodman and O'Shaughnessey 2005). Following the Shannon north, the next evidence for the Early Mesolithic is at Lough Boora, County Offaly about 100 km from Hermitage, connected to the Shannon via the River Brosna (Ryan 1980). While at Hermitage we have explicit ritual behaviour in the form of burials and artefact deposition, at Lough Boora the site is traditionally viewed in economic terms as a temporary hunting/fishing site. However, Finlay's (2003a) reading of the site suggests that the burnt lithics found there represent more than simple discard – she has suggested that the high level of burning of the lithics, which altered their appearance similarly to bone, represents purposeful acts; she suggests that the lithics were being metamorphosed. Therefore, what this highlights is that we are not dealing with two 'type-sites': a ritual and a profane. Lough Boora is not simply an economic campsite, a convenient stopping place in a seasonal round. Rather, the tasks at Lough Boora were carried out in landscape infused with ritual: the taskscape is a ritual taskscape. This is not to suggest that the landscape was simply a homogeneous spread of ritual locations, without special places acknowledged and demarcated. But rather, that the tasks carried out at, and the perception of, 'mundane' sites such as Boora were enmeshed in the world view of the communities who visited and stayed at them. Indeed, the use of the term 'ritual' is problematical in that it creates a binary division between the ritual world of religious or spiritual actions and the mundane world of setting up camp, hunting, gathering, lighting a fire, disposing of "waste", where these are inextricable fractions of life.

In terms of the revisiting and reuse of locales, such as witnessed at Hermitage, what is interesting is that while the bog encroached the site at Lough Boora and fundamentally altered its topography and ecology, Later Mesolithic material was found in the peat during excavations, suggesting a reoccurrence of activity here at a much later stage when the place had physically changed. Is this a fortuitous find, simply because this area happened to be excavated, or does it signify something more about the re-visitation of this locale during the Later Mesolithic?

On the waters and in the woods

As outlined above, the evidence for the Later Mesolithic in the west of Ireland consists of lithics found along the north and west coast of the region, along the Shannon system, as well as in the interior of the region. However, the distribution of material is biased towards the two lakes of Lough Gara and Lough Allen, where drainage schemes have exposed lithics on the shoreline. The consistent pattern in the distribution of material is the dominance of waterside locations when compared to post-Mesolithic material. However, this patterning is sometimes misstated – for example, Fredengren (2002, 137) has suggested that 'all recognisable human activity in the Mesolithic took place in the border zone between land and water', arguing that this was so due to the Mesolithic inhabitants' cosmological relationship with water. This would appear,

however, to be an erroneous reading of the distribution of Mesolithic material: while the Mesolithic material is undoubtedly gravitated towards water, evidence from the southeast (Zvelebil *et al.* 1996), the west (Driscoll 2013), the north-west (Kimball 2000a), and north-east (Woodman *et al.* 2006) has shown that Mesolithic material is not restricted to the border zone alone. The known distribution of material from Lough Gara and Lough Allen has been created by the drainage schemes: the only areas investigated on these lakes have been the exposed shorelines, entailing that the distribution of material away from the lakes is almost unknown.

In terms of the west of Ireland, the finds from Clonnaragh, Urlaur, Prospecthill, Streamstown, Leedaun, and Ballycurrin Demesne, are, while all found *near* water, not related to the border zone itself (Fig. 4.1; Driscoll 2006). Therefore, apart from the evidence produced from the drainage schemes of the two lakes, half of the findspots in the west are away from the land/water border zone. Indeed, the find of the retouched point from Prospecthill, County Galway (Driscoll 2013) highlights a find from inside the woodland itself – while today the findspot of this lithic is about 700 m from the coast, in the Mesolithic a lower sea-level of 3–6 m would mean that the coast was 2–3 km away, as the bay is shallow around this point. The closest river is also 2 km away, highlighting that this lithic is not related to a waterside location, but rather deep in the interior of the woodland itself. Again, the two Mesolithic finds from Clonnaragh, County Roscommon, are not directly related to water, but rather would have been in the interior of the woodland as well.

Elsewhere I have looked at the Irish Later Mesolithic as comprised of constructed landscapes, which involved both looking at how we construct these past landscapes, and how the landscape was actively constructed and reconstructed in the Mesolithic (Driscoll 2009b). Examining the growing body of evidence for various types of constructions in the Later Mesolithic landscape and, it was suggested that by looking at the platforms and other constructions of the Mesolithic landscapes as personalities can obviate the necessity to interpret them in light of monumentality or economic functionality. Rather, as personalities, and from a taskscape perspective where the animate and inanimate are inextricably linked, the division lines between persons, objects, and places are blurred; the construction of all these unfold in a continual process of creation and recreation. As discussed above, for the Mesolithic in Ireland there is a strong gravitation towards riversides and lakesides. Looking back to the taskscape at the water's edge, we can see that the waters and the woods are not two diametrically opposed parts of the landscape. Rather, they were together the dwelling place of the communities. As we can view the platforms by the waters as personalities in the landscape, so too can we suggest that the paths through the woods that connected these constructions to other nodes were also personalities (Driscoll 2009b).

The Mesolithic period has long been linked with the development of the post-glacial forests – the communities were called 'Forest folk' (Childe 1957), with the forest seen as a 'problem' to the communities (Hawkes and Hawkes 1947), rather than their home.

While it is clear that the Mesolithic communities in Ireland were in fact woodland dwellers, the woods have usually been treated as simply an *a priori* ecozone (Woodman 1978; Kimball 2000b) or an inhibiting factor of the inhabitants' settlement (Mitchell and Ryan 2001; Lynch 2002), as opposed to a lived-in environment. Where researchers in Britain have looked at the forest in the Mesolithic, it has tended to be towards how the Mesolithic communities altered, or managed the woodlands for their economic benefit: Warren (2001, 127) has commented, that this 'concept of management ... was connected to a desire amongst researchers to identify Mesolithic populations that were actually *doing* something significant', as opposed to simply dwelling.

As mentioned earlier in the context of Hermitage, we have to be cognisant of the changing aspect of the woods. As we are dealing with a time span of over 2000 years for the Later Mesolithic, the composition of the woodland would have changed dramatically at both a regional and local scale. It is often stated that the forest cover in Ireland consisted of a dense canopy, with no breaks apart from the big rivers and lakes (Mitchell and Ryan 2001). However, considering the fact that the shrubs and trees here are shade intolerant, regular clearings, primarily through tree-fall by various agencies, must have been present to allow the trees to regenerate; the woodland was not a continuous canopy, but rather intermittently interspersed by glades (Rackham 1988). These glades were not just humanly caused gaps in the forest, but rather, a natural part of the life cycle of the ecosystem. In Ireland, there is evidence for openings in the woodland in Ireland (Preece *et al.* 1986; Molloy and O'Connell 2004; Warren *et al.* 2013). Furthermore, Rackham (1996) has argued that the description of the climax forest as being, for instance, a 'mixed oak forest' belies the complexity of the woodland composition; he suggests that individual stands of trees would have differing compositions. Rackham (1996) further argues that hazel should be considered a canopy tree as opposed to a tall shrub: it has been undervalued in the canopy composition because it produces little pollen if shaded by taller trees, whereas alder has been over represented due to the locations where pollen cores are taken.

Mitchell and Ryan (2001) have noted that the trees left in the Irish landscape are of a diminutive size compared to what would have grown at the time; for instance they suggest that oaks would have reached 27 m in height. These trees would have grown for hundreds of years. This temporality of the woods is a critical aspect of the relations people had with the environment. Whereas a human life can be measured in the yearly cycle of a deciduous tree over the seasons, the fact that a tree would have stood for generations of human life marks them out as different from animals and other plants. On a smaller temporal scale, whereas today's floodplains are relatively free from debris and fallen trees, in a wooded landscape this would have been considerably different (Brown 1997). Fallen trees and organic material can dam rivers and alter the channels; the evolving channels lead to the terrestrialsation of channels, and the creation of new ones. Brown (1997) suggests that the floodplain forest on the River Lee, in today's landscape in the south of Ireland possibly represents the best analogy of the Cool

Temperate Mid-Holocene alluvial forests. Here, the maze of anastomosing channels run through woodland, from the wet species such as willow and alder on the wetter islands and margins to the dry species such as oak and ash on the higher islands and islets. This small floodplain woodland has 20 species of trees, 83 species of flowering plants and ferns, and 62 species of moss and liverwort (Brown 1999). We can suggest that the Mesolithic communities living by the rivers would have inhabited a similar landscape to this, in stark comparison to the almost treeless, channelled rivers in the west of Ireland today.

It has been argued that the Later Mesolithic lithics were essentially a wood-working kit (Woodman and Anderson 1990). From the excavations of the fishing traps on the Liffey, we have possible evidence of the coppicing of trees (McQuade and O'Donnell 2007). The possible evidence for coppicing does not need to be portrayed in terms of woodland management (*cf.* Warren *et al.* 2013) – of a distinction between the cultured woods and the natural woods – instead, the coppiced woodland highlights the enmeshment of the Mesolithic communities' in the landscape. As the communities created space for the woods to flourish, and flourish in a manner aptly suited to their needs, the constructed woodland in turn structured the inhabitation of the communities in the landscape – these constructed spaces were returned to over generations, long after the initial creators had passed. From the Liffey excavations there is also evidence for the selective use of hazel at the site, even though other suitable types of trees were available (McQuade and O'Donnell 2007). In a wooded environment, we can suggest that the Mesolithic communities understood the woods intimately, in terms of both the physical and spiritual properties of the woods. As Ingold (2000) has commented, the trees themselves would have been considered animate, spiritual beings, not just the animals that lived in the woods. In a similar vein, Bloch has expanded on the ritualistic implications of plants, arguing that the importance of plant sacrifice has been neglected in ethnographic accounts, possibly because 'it is a less spectacular subject for ethnographic films than the essential staple of animal sacrifice that characterises this form of entertainment' (Bloch 1998, 40–1). He further argues that transformative potential is the central fact of ritual symbolism, and the 'symbolic power of trees comes from the fact that they are good substitutes for humans' (Bloch 1998, 41).

Maclean (1993) outlined the possible range of edible flora available in Ireland, listing a minimum of 120 possible species available, with more available in restricted geographical areas. She comments that this is simply those possible as availability will not guarantee use – cultural factors also dictate what is considered acceptable for consumption. Zvelebil (1994) discussed evidence for plant use in the European Mesolithic; he cited Lough Boora as producing evidence for hazelnuts. However, this is taking a minimal view of the possible plant use, with others available in the area, as O'Connell's (1980) pollen analysis highlights. The use of plants went beyond food as well. Plants, lichen, and fungi would have been used for medicinal

purposes (Allen 2004), with the Irish landscape containing fungi with hallucinogenic properties, including Fly Agaric (*Amanita muscaria*), and Liberty Caps (*Psilocybe semilanceata*). The use of flora and fauna for food, medicine, clothing, and shelter would have been understood on the basis of the mythopoesis of the landscape and all its constituents.

Human–animal relations

Discussions of the subsistence practices, or hunting and gathering, of the Mesolithic communities in Ireland invariably comment on the impoverished nature of the flora and fauna on the island. However, it is arguable that impoverishment is a relative term. What was there was a bewildering array of foods that the Mesolithic communities could have obtained (for a recent review see Warren 2015). On assessing the isotope readings for the Mesolithic human remains, Woodman *et al.* (1999) asked if the interior of Ireland could have supported Mesolithic people without a reliance on salmon. Clearly, it would seem that it could. When looking at the faunal subsistence of the Mesolithic communities, an important point to bear in mind is that we are not looking at just how people survived by eating, but rather at the relations people had with their neighbours – the animals – in the woods and the waters, as well as with themselves: as Jordan (2006) has put it, subsistence involves a symbolic and cosmological dimension, and as well as social negotiation. He argues that material signatures of these are visible in the archaeological record, but usually glossed over in the hunt for economic and ecological questionings. Looking at the Irish context, and taking into consideration the poor preservation rate of bone, an interesting omission from the faunal record from almost all Mesolithic sites is the bear. The bear is universally singled out as a special animal, due to their human-like appearance, footprints, excrement, and omnivorous diet, as well as because they are ‘manifestly intelligent’ (Ingold 1986, 258). The paucity of bear remains on Mesolithic sites in Ireland does not necessarily indicate a taboo with eating them or killing them for their hides due to these anthropomorphic qualities. Rather, Jordan’s (2006) example from Siberia highlights that there, the bones of the bears were treated in very specific ways and not discarded or deposited in a similar fashion to other faunal remains.

Indeed, it has even been speculated that bear may have been brought onto the island by Mesolithic communities (see discussion in Warren *et al.* 2013), with other mammalian introductions by Mesolithic communities including dog and wild boar (Green and Zvelebil 1990; Woodman and McCarthy 2003), and possibly badgers and pine martins (Lynch 1996). This thesis is similar to that of the ‘transported landscape’ discussed in the context of the hunter-gatherers in the Pacific islands (Gosden 1994), with analogous behaviour seen in Europe (Zeder 2011). While these were not domesticated animals *per se* this notion opens up the whole question of human–animal relations to a greater extent, rather than the dichotomous relationship between the domesticated and the wild such as developed by Hodder (1990).

Commenting on the Achaur Indians and other Amazonian groups, Descola (1993) demonstrates how, although they are horticulturalists, they have not attempted to domesticate animals even though they do tame animals. He comments that this should not be seen as a failing as such on their part – a lack of technical know-how – as they are adept at handling and domesticating plants. Rather, it is due to their understanding of the world. He surmises that ‘along with the Achaur, many Amazonian tribes regard the beasts of the forest as subject to the spirits that protect them; accordingly they are already domesticated as they possibly can be’ (Descola 1993, 131). Around their houses, they very often have tamed animals, usually the young of animals hunted, and that some of their houses ‘resemble positive Noah’s Ark’, and once tamed they are never eaten (Descola 1993, 130). Zvelebil (2005) has discussed this issue of the taming of animals, suggesting that it has its origins in the Palaeolithic, which intensifies in the Mesolithic. In Ireland the one domesticated species was the dog, and in the Scandinavian Mesolithic the numerous dog burials at Skateholm attest to the special relationship this animal played in the communities (Larsson 1993). One of the richest graves in terms of grave goods was that of a dog, with the animal buried with a deer antler along its spine, flint blades at its hip, and a decorated antler hammer at its chest – the antler and the blades were placed in the same manner as male human burials. Again, as in the human burials, red ochre was used. It was suggested that at Skateholm I, six of the eight dog burials were placed in a delimited area. This was taken as possibly meaning that the dogs were treated similarly yet differently. However, dogs were also buried with humans, and it was suggested that the placement of decapitated dogs in human burials is signs of sacrificial rites. One difference between human and dog burials is that dogs were never placed with animal teeth, whereas humans often were (Larsson 1990).

Looking at the question of human–animal relations and the fluidity of the boundaries between humans and animals, Conneller (2006, 161) has suggested that unless the specific conditions at play in the Mesolithic are investigated, the pronouncements ‘run the risk of adding to the list of “banal phenomenological truisms” that have become common in many “post-processual” Mesolithic narratives’. She adds that her work showed that deer remains were treated differently at Star Carr. However, this would seem to miss the important point that human–animal relations are not solely centred on one species of animal. Rather, the distinction between the modern western view of organisms – with their essential nature as pre-specified prior to entry into the life process – is fundamentally different to hunter-gatherers (Ingold 2000). Using the example of the Cree, Ingold (2000, 51) shows that for them life is not pre-specified, but is described as continuous birth: ‘to be alive is to be situated within a field of relations which, as it unfolds, actively and ceaselessly brings form into being’. Therefore, personhood is as much a part of non-human animals and plants as it is for humans. This suggests that even though we may see special treatment of certain animals, such as Conneller has suggested for deer at Star Carr, this does not

mean that the communities there did not view *all* animals as open to personhood, but rather that they were treated differently for another reason.

What is curious about the possible Mesolithic transport of large fauna to Ireland is that they seem to have forgotten to bring deer. Deer, and deer hunting, are prominent motifs in Mesolithic studies (Finlay 2000). The discovery of deer frontlets at Star Carr that may have been used as a headdress has entrenched the economic and symbolic importance of deer in British Mesolithic studies, so much so that Fredengren (2002) has suggested that the antlers of extinct giant deer found at Lough Gara may have been used in a similar fashion. However, it could be argued that the Mesolithic communities would have been more involved with their more contemporary companions, the boar. Rather than imagining the communities at the time donning massive antlers, it may be more apt to regard the tusks of boars, which have also been found at Lough Gara, as more suitable apparel. It is noted that the Irish Mesolithic hunter-gatherers have been described as fisher-hunter-gatherers. Looking at the relations that people had with fish, the idea of appearing like a salmon or an eel would not seem to have the same romantic image as much as the shamanic practices of wearing deer frontlets. However, the stone carvings from Lepenski Vir have been suggested to represent half human half fish beings (Mithen 1994), suggesting that the relations people had with animals were not restricted to those on *terra firma*. This special relationship with fish is more than likely analogous with areas such as Ireland, where waters and fishing were arguably central to Mesolithic communities and taskscapes.

What these aspects of human-animal relations highlight is that analyses based on optimal foraging strategies, or resource maximisation (e.g. Kimball 2000a) must be tempered with the understanding that subsistence is not a straightforward research agenda. Moreover, peoples' relations with animals did not begin and end with the animals that they either ate or killed for hides. Just as the flora in the landscape was not just a repository of resources to be exploited, the animals were more than just provisions waiting to be used. While Mesolithic taskscapes may not have involved the trapping and eating of swallows, the arrival and departure of swallows and other migratory birds would have marked the coming and going of the seasons, forming the cyclical backdrop to the everyday routines of the taskscapes.

Looking back to the taskscapes, these same seasonal changes would have been experienced as the rise and fall of water levels by the waterways and in the wetlands. As Warren (2001, 30) has put it, 'the temporality of activity is not just a matter of scheduling seasonal resources, but that these time frames are important in understanding identity and the ways in which people came to terms with their landscape'. Clearly, the climate and ecology shape a community's positioning in the landscape, but this is not translated to reified models of subsistence. Commenting on ethnographic work undertaken on the Amazonian floodplain, Whittle (2003, 25) outlines that the rise and fall of the river levels between the wet and dry season leads to, in turn, congregation and dispersal of the communities: 'seasonality is not just

a matter of adapting to a framework of external environmental constraints, but is experienced by changes in sociality and mood’.

Concluding remarks

‘Landscape has to be contextualized. The way in which people - anywhere, everywhere - understand and engage with their worlds will depend upon the specific time and place and historical conditions. It will depend upon their gender, age, class, caste, and on their social and economic situation. People’s landscapes will operate on very different spatial scales, whether horizontally across the surface of the world, or vertically - up to the heavens, down to the depths. They will operate on very different temporal scales, engaging with the past and with the future in many different ways. The landscape is never inert, people engage with it, re-work it, appropriate and contest it.’ (Bender 1993, 2–3)

‘Neither is the landscape identical to nature, nor is it on the side of humanity against nature. As the familiar domain of our dwelling, it is with us, not against us, but it is no less real for that. And through living in it, the landscape becomes part of us, just as we are part of it.’ (Ingold 2000, 191)

These extended quotes neatly encapsulate a number of key points that are central to the use of a landscape approach in this paper. A focus on the landscape must contend with the realisation that what we as present day researchers regard as landscape is not what was known or thought of by the people whom we are attempting to study. We live in vastly different times, and to repeat a commonplace, the past is a foreign country.

So how can we approach prehistoric landscapes? A phenomenological approach is an intuitively attractive proposition. However, there are considerable complexities in following such an approach, a key issue being the peril of essentialism. How can we translate a long past experience of the world into our terms? It is clearly of importance to use an approach that is founded on an understanding that one’s physical place in the world is integral to one’s experience. The idea that we are somehow divorced from the landscape is quite bizarre but a commonplace in the western tradition of thought. For example, Meinig (1979, 33) states that ‘landscape is defined by our vision and interpreted by our minds ... Strictly speaking we are never in it, it lies before our eyes’. However, if I raise my hands, I am immediately in my vision in the landscape: I am, therefore, in the landscape. This notion of the detached human entity, the brain in a body, is of course deeply ingrained in the ‘I think therefore I am’ paradigm.

Using Ingold’s concept, one can view the landscape as an array of features formed and also unformed by peoples’ sociality. However, this is not a methodology, but rather a tool for thinking about one’s methodology. By adopting the taskscape approach, and recognising the temporality of the landscape, allows one to investigate the landscape from the position of the interconnection of the evidence we see of the periods. Moreover the change seen between the Early Mesolithic and the Later Mesolithic, and indeed the subsequent Neolithic transition, can be seen as process whereby the changes in the material culture – be they new lithic strategies or

ceramics or the introduction of new flora and fauna through transported landscapes – can be seen as changes in the taskscape, not solely technological advances or economic achievements but rather an array of differences that altered how the landscape was used and perceived. The temporality of the landscape maintains that the landscape and its perception are grounded in the historical particularities of activities taking place.

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Chapter 5

Interpreting a ceramiscene: characterising Late Republican and Imperial landscapes

Ulla Rajala and Philip Mills

Introduction

This paper continues a series developing the concept of ‘ceramiscene’ (Mills and Rajala 2011a; 2011b; 2014; Rajala and Mills 2014). This is based on the adaption of Lynch’s (1960) urban Elements, the basic classificatory categories of Nodes, Districts, Edges, Paths, and Landmarks, onto the hinterland of a Roman urban centre, inspired partly by Ellis’s (1995) application to Roman urban form. This theoretical framework was combined with the tools of functional and fineware analysis developed for pottery assemblages, largely by Evans (2001). The concept originally resulted from ‘The Romanisation of a Faliscan Town’ project and it was partly a response to Witcher’s (2006) critique of the lack of theoretical and interpretative developments in Italian landscape archaeology, particularly regarding survey projects. The concept and related ‘ceramiscene’ methodology is an outcome of the collaboration between a Roman pottery and ceramic building material (CBM) specialist (Mills) and a Geographic Information Systems (GIS) practitioner (Rajala). Thus, the methodology is built from the different theoretical and methodological approaches of landscape characterisation, Roman pottery studies and archaeological computing.

The theoretical approach and the related methodology recognise the importance of pottery as the material that provides the bulk of evidence from archaeological surveys and its significance in chronological characterisation and settlement analysis (Cascino *et al.* 2012). Whilst the problems in the use of such unstratified surface material are widely recognised (Millett 2000a; Patterson 2006, 17–24), ceramic evidence is structured in such a way that useful insights can be made through the systematic quantitative and qualitative analysis of an assemblage. This pottery analysis ideally contains the full breakdown by different wares (chronologically and/or functionally meaningful appearances or pottery types, Booth 2000), fabrics (characteristics of the clay body within a ware, *cf.* Orton *et al.* 1993, 67) together with form and functional

types (Evans 2002). With ‘ceramiscene’ we aim at using pottery, and ultimately other survey finds and the entirety of archaeological knowledge of an area, in the widest possible characterisation of a landscape.

Surface finds have potential beyond simple dating purposes and can provide information of activities and interaction both between humans and landscape and between different human communities. One of our objectives is to use all ceramic evidence, not only ‘diagnostic pieces’ and finewares or material from concentrations identified as ‘sites’ of the Roman period. Whilst, our analysis began with the characterisation of sites as Lynch’s nodes (Mills and Rajala 2011a; 2011b), we have started to explore possible archaeological definitions of Lynch’s other Elements as well (Rajala and Mills 2014). In this article we will explore further the use of wares as markers in defining Lynch’s (1960) ‘Districts’, delimited areas with shared characteristics, and compare the overlap of this concept with different aspects of Ingold’s (1993) taskscape.

The assemblage used for this study was collected as part of the Nepi Survey Project (di Gennaro *et al.* 2002; Rajala 2006; di Gennaro *et al.* 2008). It is the result of surface collection in the territory of Nepi (ancient Nepet), north-west of Rome, in 1999 and 2000 under the umbrella of the Tiber valley project (Patterson and Coarelli 2008). The analysis of the Roman pottery and CBM from this survey was carried out by Mills as part of the ‘Romanisation of a Faliscan town’ project, funded by the British Academy.

This paper summarises the characterisation of a ‘ceramiscene’ landscape, then gives a brief presentation of the methodology and general results of the Nepi Survey Project, and finally looks more specifically at the evidence for Republican and Early Imperial land use, as conveyed by easily recognizable tablewares, and the importance of *amphorae* in Roman settlement studies. This example is an assemblage of Roman fieldwalked material, but the potential of our approach, combining GIS informed analysis and visualisation to the ceramic analysis, for other periods and geographic areas beyond Roman central Italy should be clear.

The ceramiscene landscape characterisation

Ingold’s (1993) concept of ‘taskscape’, a socially constructed space of human everyday actions, was influential in defining ‘ceramiscene’. Rajala (2012) has given an example how ceramic distributions can serve as a proxy for the spatiality of human activities, a theme elaborated from her PhD research (Rajala 2002). Taskscapes also emphasise the temporality and accumulation in presenting landscapes ‘as an enduring record of – and testimony to – the lives and works of past generations who have dwelt within it, and in so doing, have left there something of themselves’ (Ingold 1993, 152). In archaeology this ‘something’ is archaeological material and in surface surveys most often pottery. Thus, the dating of past activities over large areas is largely dependent on ceramic material and this has resulted in us putting ceramic material at the core of our concept. In its materiality the ceramiscene presents a specific form of the

taskscape that gives the intentional and unintentional past uses of archaeological materials temporal and geographical dimensions.

The *ceramiscene* approach emphasises the transient nature of a taskscape and the inherited restricted possibilities of studying past taskscapes archaeologically. A *ceramiscene*, defined as: the landscape that is created, manipulated and experienced by the manufacturing, usage and disposal of material of deliberately shaped and fired clay, (*i.e.* excluding more ephemeral and accidental survivals such as daub), reflects the reality that most of recovered Roman survey material is ceramic, both pottery and building materials. Other materials may have been scarcer, been more likely to have been recycled or otherwise are less likely to survive as surface scatters. By so defining the ‘*ceramiscene*’ we acknowledge that survey results are ultimately biased, but through its application we can aim at using the limited evidence as fully as possible.

Mills and Rajala (2011a) applied Lynch’s (1960) elements of urban form (Nodes, Districts, Edges, Paths, and Landmarks) to articulate the constructed Roman rural landscape and to characterise taskscapes. Our argument was that Roman landscapes in Italy were being urbanised from the Republican period onwards and built upon and across earlier city-state territories (Rajala *in prep.*), and the distinction between an urban centre and its rural hinterland was not as clear cut as archaeological methodologies may sometimes suggest (*cf.* Taylor 2001; Millett 2001; Goodman 2006). We also were influenced by Hillier and Hanson (1984) to develop hierarchies within different elements (see also Ellis 1995).

We defined hierarchically settlements (*e.g.* Potter 1979) that are analogous to Lynch’s Nodes, strategic points that can be entered as the *foci* of travelling. Roman roads (*e.g.* Laurence 2002) equate with Paths, the channels of movement. Edges are linear elements that equate with natural or observed boundaries between zones, whereas Landmarks, the points of reference the observer does not enter, relate to landscape features that guide movement. Districts, sections identified by different common characteristics with a two dimensional extent, we have equated with field units sharing specific common characteristics, such as the distribution of certain pottery wares, fabrics or form types. This conceptualisation, combined with the typological and functional pottery analysis developed by Evans (2001), allows characterising any ceramic archaeological landscape –full *ceramiscene* analysis – if the assemblages are large enough (ideally with more than 15 rims).

In our earlier work (Mills and Rajala 2011a; 2011b) we concentrated on archaeological sites and the evaluation of these as ‘Nodes’. At Nepi the sites were defined in the field by applying a basic qualitative Roman site typology (*cf.* Kahane *et al.* 1968, 154; Potter *n.d.*, 12; 1979, 122; 1992) with huts, renamed in the Nepi Survey as ‘minor sites’, farms, villas and large villas and defining tombs and burials either by their rock-cut structures or by clearly defined small scatters of roof tile and/or pottery in the areas associated with known cemeteries. Nodes were defined by an observed concentration of finds that contrasted with the background densities, taking into consideration ‘haloes’, post-depositional spreading, ‘off-site’ finds (Bintliff

and Snodgrass 1988) and ‘non-sites’ as part of the archaeological ‘background noise’ (Coccia and Mattingly 1992). The functional analysis of the pottery from the Nepi Survey (Mills and Rajala 2011a) demonstrated clear differences between site types, thus allowing a more robust method for identifying site function. Similarly site status was also successfully mapped using fine ware supply.

The bulk of the material from the Nepi Survey is from fields, and not assigned to ‘sites’, and Lynch’s other elements provide a useful means of exploring different spatial relationships (Rajala and Mills 2014), than those determined for Nodes. Paths and Edges may be determined by evidence of ancient roads and extant topography, but their effectiveness (or permeability, Hanson and Hillier 1984; Ellis 1995) can be measured by the relative flow of goods from specific sources, *i.e.*, specific fabrics may appear in greater (for Paths) or smaller (for Edges) proportions than would be expected along paths or beyond edges. These extant topographical features as well as the routes of Roman roads can be used to define ‘Districts’, which can be further explored by association between pottery wares/types/fabrics and geographical attributes of the collection units. It seems reasonable to expect the ceramic evidence to reflect activities of Nodes within Districts, albeit disturbed by modern land usage and partitioning. For instance by comparing levels and types of *amphorae* and finewares within Districts, alongside using geographical tools such as Thiessen polygons, it may be able to suggest plausible ancient property estate boundaries in the case of villas and farms. This gives a theoretical underpinning for using ‘off-site’ finds in landscape and land use characterisation (*cf.* Bintliff and Snodgrass 1988; Bintliff 2000; Bevan and Conolly 2004).

The examination of the proportions (by minimum number of rims and rim equivalents) of the different functional groups by site type has produced a very powerful tool to determine site type and status (Evans 2001). Mills and Rajala (2011a; 2011b) showed that this application enables a thorough analysis of survey material, despite difficulties with chronological control using groups with at least 15 rims (suggested by Evans 2001) as the minimum. The comparison of the proportions of different ware classes of the pottery assemblage (by number of sherds and weight) can be used as a complementary tool (Booth 1991); similar ware classification was applied in the restudy of the South Etruria Survey material (see Di Giuseppe *et al.* 2008; Cascino *et al.* 2012). Combining functional analysis with ware and/or fabric distributions and site classifications provides a foundation for characterising the distribution network of pottery (and by extension other goods not visible in the archaeological record) and defining districts by collection units that have close geographical proximity but also similar attributes, or markers, indicated in the ceramic analysis.

The analysis of survey material is generally skewed towards chronological questions (*e.g.* Patterson and Coarelli 2008), and discussing population levels (*e.g.* Launaro 2012). The position of Nodes in the supply and demand network (Mills and Rajala 2011b; Rajala and Mills 2014) has also showed the potential for statistical analysis in examining economic and social relationships as well. Our research has

also underlined the importance of careful analysis of amphora distributions in Roman settlement analysis (Mills and Rajala 2014). These themes are the subject of our ongoing work on this approach.

The Nepi Survey Project

Nepi is located c. 45 km north-west of Rome (Fig. 5.1). It lies on a geographic boundary of two contrasting landscapes: the eastern part of its territory is characterised by canyon-like ravines and wide rolling plains between perpendicular cliffs; in the west, the landscape is much gentler with shallower, undulating river valleys and gentle plains.

The Nepi Survey Project has been described in detail in the publication of Roman material (Mills and Rajala 2011b). The importance of Nepi as a place stems from its status of one of the Latin colonies in the frontier between the Etruscans and the Faliscans (Rajala 2016). The Latin colony of Nepi was founded in 383 BC (Livy 6.21.4) or 373 BC (Velleius Paterculus 1.14.2) at a site of an earlier centre. The exact year of receiving Roman *colonia* status is unknown, but this happened probably at the beginning of the Imperial era (*cf.* Edwards *et al.* 1995). Roman Nepi and Falerii Novi,

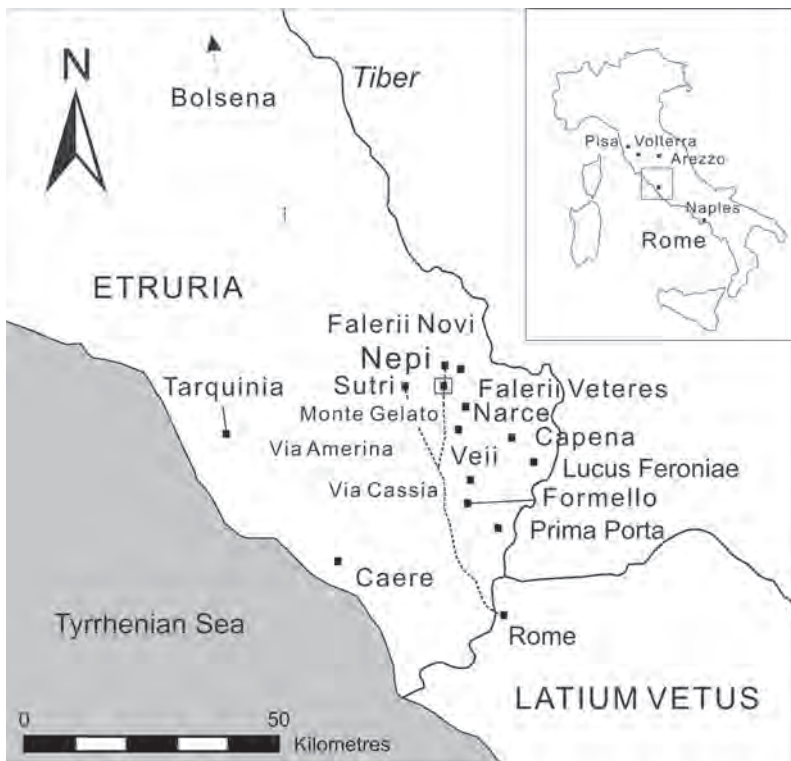


Fig. 5.1: Nepi in central Italy (illustration: U. Rajala).

founded after the capture of Falerii Veteres in 241 BC, were both connected to the Via Cassia and wider Roman networks by the Via Amerina (Fredriksen and Ward-Perkins 1957, 90, 183–8).

The Nepi Survey differed from the previous surveys in the area by recovering samples from all sectors of the territory; its study area was defined by creating a Thiessen polygon around Nepi and sampled by drawing transects along the cardinal directions radiating from the town following the grid of the Istituto Geografico Militare (IGM) Nepi map sheet. In 1999 and 2000 a total of 231 field units (Fig. 5.2), either fields, pastures or orchards, or sections of larger fields, were fieldwalked at intervals of 10–20 m; these units covered an area of 632 ha, nearly 32% of the area of the planned transects and 8% of the rectangular territory around Nepi.

This summary of site development is based on Mills and Rajala 2011b. The dating distribution by site type (Fig. 5.3) shows the increase in pottery at Nepi during the Late Republican and Early Imperial periods. In the 3rd century BC the first burials and roadside sites can be observed with farms and the suburban halo around Nepi the most significant site categories. This pattern expands from the 2nd century BC

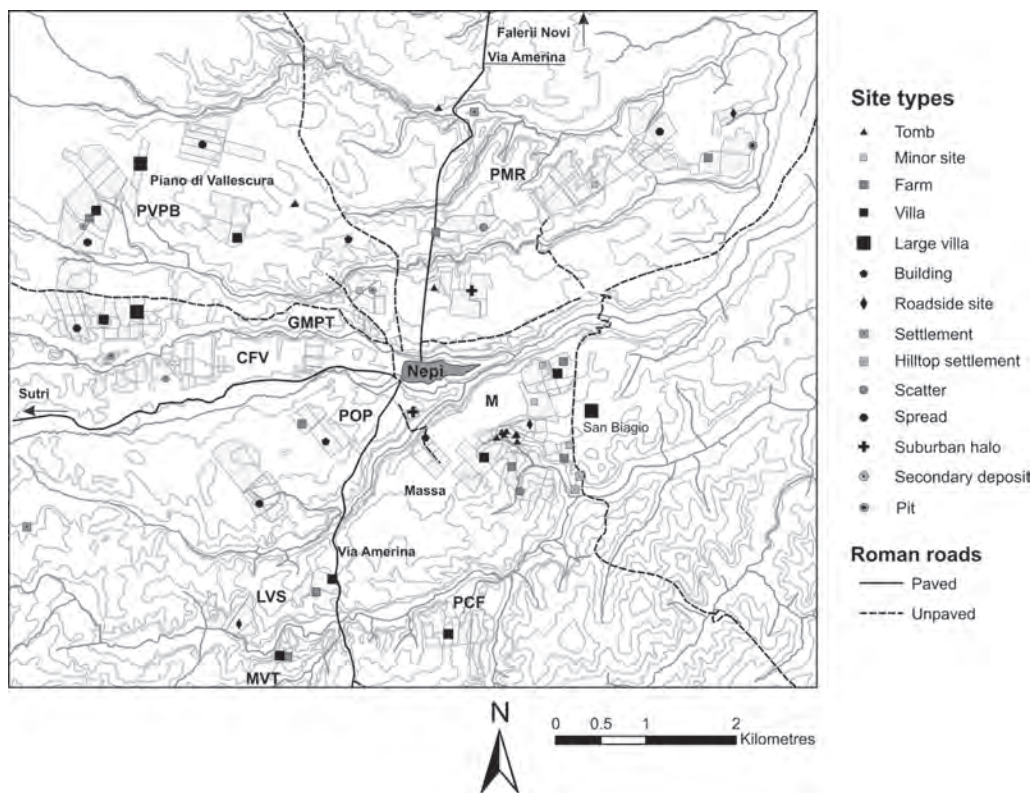


Fig. 5.2: Survey areas and Roman sites (illustration: U. Rajala).

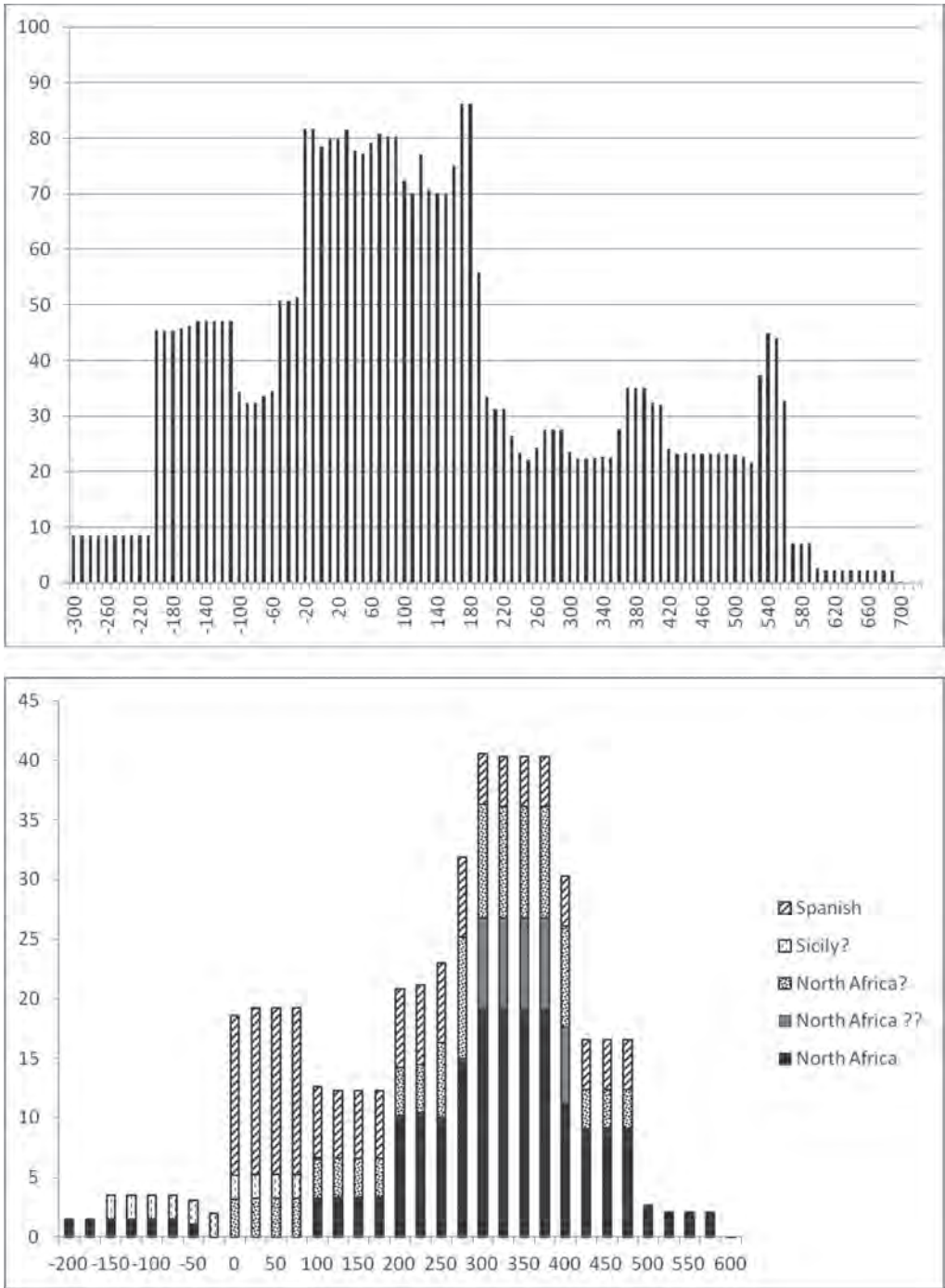


Fig. 5.3: Top: the normalised Roman date distribution. Bottom: the normalised amphora date distribution (illustration: P. Mills, after Mills and Rajala 2011b, figs. 2 and 18).

with all site types in occupation, conforming to regional settlement expansion (Di Giuseppe 2008a, fig. 1). Most site types are at their peak in the 1st century AD, except burials. There is a slight decline in the 2nd century, mainly at the expense of farms with a continued decline in deposition on cemetery sites. All sites are drastically cut back in the 3rd century, as is seen throughout the region (e.g. Panella and Tchernia 1994; Patterson 2006, 74–7; Witcher 2008), with burials, roadsides and minor settlement sites disappearing by the 4th century AD.

The relative importance of Nepi in the late Roman period is suggested by the catacomb of Santa Savinilla (Francocci 2006, 46). Whereas Falerii Novi seems to have ceased to exist as an urban centre by the 5th century AD, Nepi was relatively flourishing (Cifani and Munzi 1995, 390–1). There is a small increase of pottery deposition in the later 4th century. This peak was over in the 5th century, whereas a final peak followed in the mid-6th century, mainly in the urban halo, which was the only presence from the 7th century onwards. These late Roman peaks conform to a large extent to the known periodisation of rural Tyrrhenian settlement (Francovich and Hodges 2003, 31–53).

In the Nepi Survey assemblage the dominant ware class is the ‘utilitarian’ oxidised coarse wares at 73%. *Amphorae* at 6% show the same proportion as in the Tiber Valley Project (Di Giuseppe *et al.* 2008, fig. 2). The levels of finewares, *terra sigillata* and African red slips, combined at 3%, are far lower than in the Tiber Valley Project (39.7% of the material, Di Giuseppe *et al.* 2008, fig. 2). This is a significant variation, which can be mostly accounted for by collection biases at observed site points and the proximity of fineware production sites around Veii (cf. Di Giuseppe 2008a, fig. 10; Bousquet *et al.* 2008, fig. 7). The South Etruria Survey also coincided with the introduction of deep ploughing that affected the quality of the material (Witcher and Craven 2012). The lack of finewares may partly result from higher demand for more precious vessel materials at the highest status sites and/or lower numbers of high status agricultural sites around Nepi. In any case, the main villas in the Nepi Survey area (GMPT37–38/1, PVPB28/1), settled from the Early Imperial times into the late antiquity, show the presence of finewares and similar functional assemblages, for example with high levels displayable tablewares.

Ceramiscene methodology

Mills and Rajala (2011a, 9–10) showed that the proportions of coarseware fabrics mapped connectivity, circulation and supply networks, and that finewares can differentiate between Nodes and Districts, although it is as ever worthwhile to remember that the find distributions can be effected by site access and visibility.

In our analysis we use dated wares as markers for activities and land use during different periods. The analysis of finewares allows the development of a refined chronological framework and high proportions of finewares in a given assemblage is an indicator of the nearby presence of a higher status settlement, dwelling or tomb. High levels of finewares and certain functional groups related to display or drinking are indirect sign of higher site status and help in categorising the landscape

socially, especially in the case of villas (Mills and Rajala 2011b, 204). The recognition and assessment of these higher status activity areas over time required both the comparison of the distribution maps, created using ArcGIS, and the statistical evaluation of the distributions of specific finewares against the geographical attributes of the collection units. The use of statistics, especially correlation coefficients, in defining significant relationships between the find numbers and the geographic characteristics have been found helpful in defining activity areas (cf. Rajala 2012). The following example characterises Districts within the territory of Nepi during the earlier Roman periods and uses the comparison of different distributions and geographic relationships in differentiating between practices at different times. The significant temporal patterns are presented in this article.

Kendall's Tau and Spearman's Rho coefficients (Field 2000, 91–3), two non-parametric statistics suitable for archaeological distributions (Shennan 1988) with Spearman's Rho especially suitable for small datasets, were calculated in order to find any correlations between the fineware numbers and attributes of their geographic context. The Wilcoxon Mann-Whitney rank sum test (Field 2000, 53–7), measuring if two distributions are subsets of the same wider distribution, is also very suitable for archaeology, since it does not require normal distribution that most often eludes surface assemblages (cf. Shennan 1988, 61–8). It was performed here in order to see if the fields with and without earlier Roman finewares were similar or different as places.

The null hypotheses were that the distributions and find numbers did not correlate (Kendall's Tau and Spearman's Rho) and the distributions were subsets of a population with no significant difference in the medians compared (Wilcoxon Mann-Whitney rank sum test). The values of Kendall's Tau and Spearman's Rho coefficients can be either positive or negative: a positive coefficient reveals that the observed number of cases increases with the measured attribute (e.g. distance) and a negative coefficient shows that the number of cases increases when the value of the measured attribute diminishes or vice versa. The correlations were calculated in SPSS 20 and Wilcoxon Mann-Whitney tests in Minitab 16.1 with the data stored in Excel tables. The mean values of geographic attributes for the field units were originally computed as part of Dr Rajala's PhD work, except for the distances from the Roman roads that were computed for Rajala and Mills (2014).

Black gloss ware, *terra sigillata* and thin-walled ware as high status markers of Republican and Imperial activities

The finer analysis of temporal activity areas that can be described as ceramiscenes or taskscapes requires certain precision from the chronologically diagnostic pottery. For an initial analysis, the distinctive North African coarsewares were selected for such an analysis (cf. Rajala and Mills 2014, 131–6) to complement the data from North African *amphorae* and finewares. Similarly, the easily recognisable Republican and Imperial finewares were used here to compare activities with a relative precision.

The contrast between the urban centre and large villas is apparent from the late antique material (Mills and Rajala 2014). This fits with what is known of late antique settlement patterns: general studies underline the visible disappearance of smaller farms and the concentration of agricultural activities to the large villas (cf. Potter 1979; Witcher 2008). The deeper analysis of earlier Roman pottery types suggests that this contrast is partly an artefact of the geographical spread of the field units (cf. Fig. 5.2). These are located near the town on its southern and northern side and nearby on the Massa area; and farther away near to the boundaries of the assumed territory of the town – as the re-evaluation of the original survey strategy suggested (Mills and Rajala 2011b, 150). This contrast between the town and sites further away seems to strengthen later into the Roman period.

The main finewares in use during the Late Republican period (200–33 BC) and Early Imperial period (33 BC–AD 100) were black gloss ware, *terra sigillata (italica)* and thin-walled ware (cf. Cascino *et al.* eds. 2012, 248–73). Black gloss ware is Late Republican, whereas *terra sigillata* is Early Imperial. Thin-walled ware transcends the period boundaries between the Late Republican and (Early) Imperial periods.

The first marker ware, black gloss ware, was produced from the 4th to the 1st century BC (Di Giuseppe 2012). Black gloss ware was manufactured in central and northern Italy ranging from Naples to Pisa, Volterra and Arezzo (Scott 2008, 3–6). Veii was locally in southern Etruria an important centre of production (Di Giuseppe 2005, 42–3). The forms produced in Veii included jug, platter, bowls, cups and *skyphos* (Di Giuseppe 2012, figs 5.69 and 5.70, 258–60). There were clearly other regional producers, in the middle Tiber valley probably Capena, Falerii Veteres, Narce and Lucus Feroniae (Di Giuseppe 2008b, 902), and a few vessels reached the region from Volterra and Campania as well (Di Giuseppe 2008a, table 1; 2012, 260–5). In the South Etruria Survey material the Veian production represented c. 45% of the black gloss assemblage (Di Giuseppe 2008b, fig. 3). In the Nepi Survey this ware was found from 58 field units, from a quarter of them all. All rims from surface assemblage where the functional type could be indicated were from cups or bowls from the 2nd or 1st century BC (Mills and Rajala 2011b, 181–2).

The highest numbers of black gloss ware sherds were found from the Massa area (Fig. 5.4) with exceptionally high numbers from the assumed ritual site M2/1 together with a strong presence at M32/1 and at M20 as well. The slopes below the villa sites CFV7/1 and GMPT37–38/1 show higher numbers than the actual sites: this is likely to be because of hillwash. The large villa at PVPB28/1 in the north-west was apparently not founded during this period, which points to the later, wider exploitation of the resources within the territory further away from the urban core.

The distribution of the ware correlates negatively to plan curvature that is perpendicular to the slope (Table 5.1). This means that this pottery type was found more often on flatter areas or from sideways concave slopes. This conforms to the idea we have of the Roman preferred farm locations (e.g. Rajala *et al.* 1999; Viitanen 2010, 33–5, 162–6). The find locations crucially correlate negatively to the distances

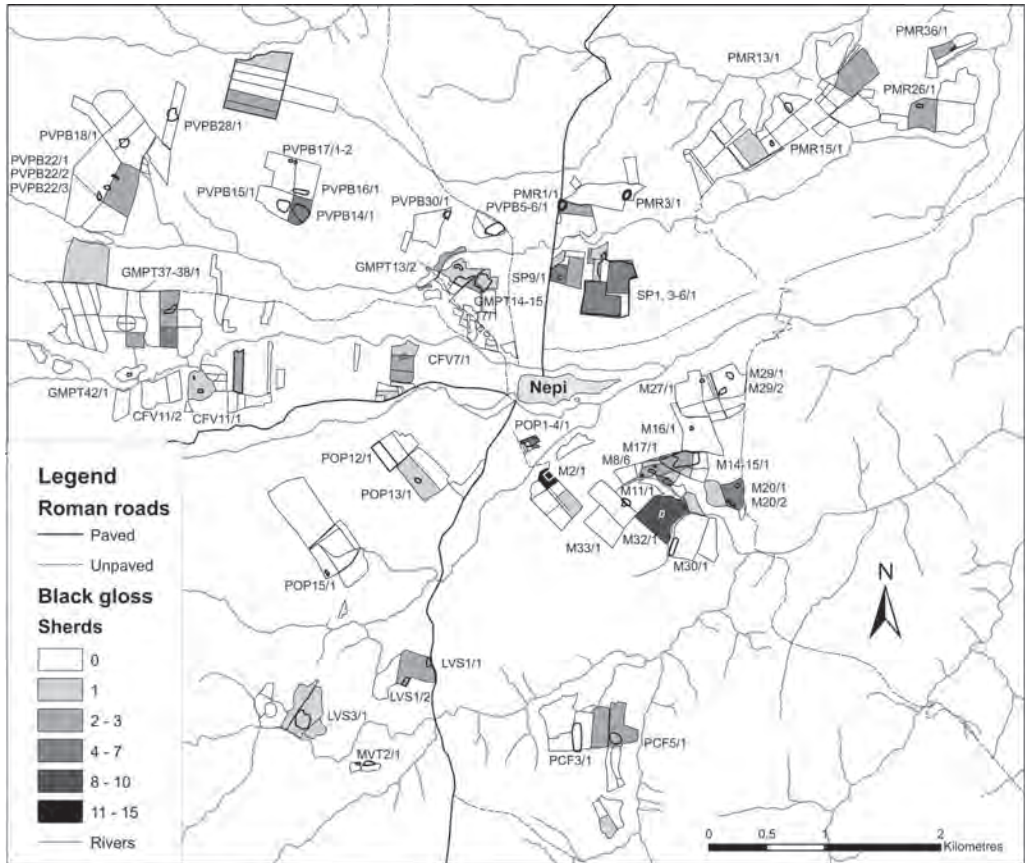


Fig. 5.4: The distribution of black gloss ware (illustration: U. Rajala).

from the road cuttings and Nepi itself. This means that this ware was found more often near the road cuttings into the river valleys and the town. Similarly, the black gloss ware correlates negatively to the distance from the Via Amerina, the new Roman road to Falerii Novi, so more of this ware was found nearer the main road.

The Mann-Whitney test is consistent with the find locations of black gloss ware being near Nepi and the Via Amerina. The field units with the black gloss ware have a median distance over 1000 metres nearer Nepi than those without. Also the median distance from the Via Amerina is smaller for those units with this ware (Table 5.2). When we consider these figures together, it is clear that the Late Republican higher status land use happened nearer the colony and the Roman road network. The disperse followed the transport connections.

The production and distribution of *terra sigillata*, the second marker ware, is dated from c. 40 BC to c. AD 100/150 (see Felici 2012b). The production of this red high-quality tableware, mainly consists of plates, platters cups and bowls. This Italian production was influenced by the earlier Eastern Sigillata (Hayes 2008, 13–19) and

Table 5.1: The correlations (the significant values in *Italics*; presentation threshold 85%, significant when >95%)

Pottery	Attribute	Correlation	Co-efficient	Sig (2-tail)	Significance level
Black gloss	Plan curvature	Kendall's Tau	-0.118	0.022	97%
		Spearman's Rho	-0.151	0.022	97%
	From cutting	Kendall's Tau	-0.107	0.039	96%
		Spearman's Rho	-0.136	0.039	96%
	From Nepi	Kendall's Tau	-0.129	0.012	98%
		Spearman's Rho	-0.139	0.013	98%
	From Via Amerina	Kendall's Tau	-0.119	0.021	97%
		Spearman's Rho	-0.153	0.02	98%
Terra sigillata	Slope	Kendall's Tau	-0.81	0.12	88%
		Spearman's Rho	-0.101	0.127	87%
	Aspect	Kendall's Tau	-0.077	0.138	86%
		Spearman's Rho	-0.098	0.136	86%
	From cutting	Kendall's Tau	-0.086	0.098	90%
		Spearman's Rho	-0.11	0.094	90%
	From least cost path	Kendall's Tau	-0.78	-0.13	87%
		Spearman's Rho	-0.101	0.125	87%
	From Nepi	Kendall's Tau	-0.148	0.004	99%
		Spearman's Rho	-0.186	0.005	99%
	From Via Amerina	Kendall's Tau	-0.084	0.104	89%
		Spearman's Rho	-0.107	0.105	89%
	Slope	Kendall's Tau	-0.113	0.031	96%
		Spearman's Rho	-0.142	0.031	96%
	Aspect	Kendall's Tau	-0.086	0.099	90%
		Spearman's Rho	-0.106	0.107	89%
Thin-walled ware	From Nepi	Kendall's Tau	-0.194	0	100%
		Spearman's Rho	-0.24	0	100%
	From Via Amerina	Kendall's Tau	-0.174	0.001	100%
		Spearman's Rho	-0.22	0.001	100%
	From least cost path	Kendall's Tau	-0.082	0.119	88%
		Spearman's Rho	-0.104	0.116	88%
	From Nepi	Kendall's Tau	-0.135	0.01	99%
		Spearman's Rho	-0.171	0.009	99%
ARS	Slope	Kendall's Tau	-0.137	0.006	99%
		Spearman's Rho	-0.176	0.006	99%
	Aspect	Kendall's Tau	-0.111	0.025	97%
		Spearman's Rho	-0.148	0.024	97%
	From cutting	Kendall's Tau	0.076	0.126	87%
		Spearman's Rho	0.1	0.13	87%
	From Nepi	Kendall's Tau	-0.086	0.084	91%
		Spearman's Rho	-0.115	0.082	91%
	From least cost path	Kendall's Tau	-0.082	0.119	88%
		Spearman's Rho	-0.104	0.116	88%
North African amphorae	Slope	Kendall's Tau	-0.137	0.006	99%
		Spearman's Rho	-0.176	0.006	99%
	Aspect	Kendall's Tau	-0.111	0.025	97%
		Spearman's Rho	-0.148	0.024	97%
	From cutting	Kendall's Tau	0.076	0.126	87%
		Spearman's Rho	0.1	0.13	87%
	From Nepi	Kendall's Tau	-0.086	0.084	91%
		Spearman's Rho	-0.115	0.082	91%

Table 5.2: The Mann-Whitney tests (the significant values in *Italics*; presentation threshold 85%, significant when >95%)

Pottery	Attribute	Yes/No	Median	Sig	Significance level
Black gloss	Plan curvature	Yes 58	-0.00212		
		No 173	0.00255	0.0219	97%
	From cutting	Yes 58	310.4		
		No 173	396.2	0.0566	94%
	From Nepi	Yes 58	1134.8		
		No 173	2377	0.0167	98%
Terra sigillata	From Via Amerina	Yes 58	1192		
		No 173	1447.4	0.0175	98%
	Slope	Yes 51	2.347		
		No 180	2.529	0.0678	93%
	Aspect	Yes 51	154.42		
		No 180	167.13	0.1345	86%
	From cutting	Yes 51	300.1		
		No 180	375.5	0.1022	89%
	From Nepi	Yes 51	1105.8		
		No 180	2335.2	0.0099	99%
Thin-walled ware	From Via Amerina	Yes 51	1255.2		
		No 180	1410.3	0.1022	89%
	Slope	Yes 38	1.838		
		No 193	2.631	0.0337	96%
	Aspect	Yes 38	152.54		
		No 193	169.95	0.1027	89%
	From Nepi	Yes 38	964.2		
		No 193	2423.3	0.0004	99%
	From Via Amerina	Yes 38	767.7		
		No 193	1452.1	0.0014	98%
ARS	From least cost path	Yes 38	200.4		
		No 193	252.2	0.1235	87%
	From Nepi	Yes 38	1073.3		
		No 193	2278.3	0.0108	98%
North African amphorae	Slope	Yes 100	2.0449		
		No 131	2.8962	0.0083	99%
	Aspect	Yes 100	152.7		
		No 131	177.33	0.0246	97%
	From Cutting	Yes 100	375.5		
		No 131	321	0.1186	88%
	From Nepi	Yes 100	1906.5		
		No 131	2428.3	0.0428	95%

marks an aesthetic turning away from black gloss wares. *Terra sigillata italica* became the distinctive cultural marker of the Augustan era (cf. Oxé *et al.* 2000). The central production area was first Arezzo (ancient Arrentium) with Pisa becoming important during Period B, whereas other potters in central Italy and the Po valley were producing prominently alongside the main sites during Periods C and D (Kiiskinen 2013, 23–7). At Veii the *terra sigillata italica* repertoire consisted of plates and cups and the stamps pointed to the production areas in northern Etruria (Felici 2012b, table 5.25, 267). The regional southern Etrurian production sites were located at Prima Porta and Vasanello (Bousquet *et al.* 2012, 626).

Terra sigillata fragments were found from 51 field units (22.1% of all). The three rims are from beakers and a flagon (Mills and Rajala 2011b, 182). The distribution map (Fig. 5.5) shows that even if a strong distribution can be observed in the suburban areas, the highest numbers come from the large villas GMPT37–38/1 and PVPB28/1 (18 and nine fragments respectively). However, generally the distribution correlates negatively to the distance from Nepi, with more *terra sigillata* found nearer the town

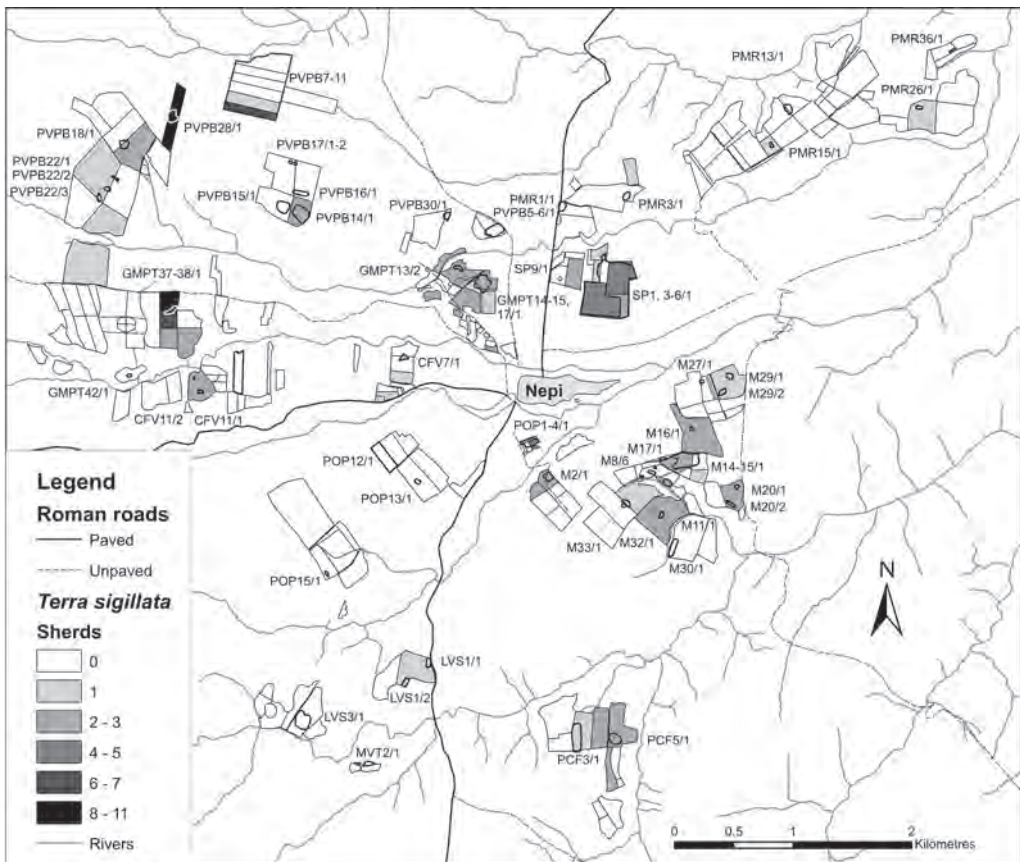


Fig. 5.5: The distribution of *terra sigillata* (illustration: U. Rajala).

(Table 5.1). In the South Etruria Survey *terra sigillata italica* was not as common as nearer Veii, but relatively numerous in the area corresponding with Massa and the areas further east towards Narce (Bousquet *et al.* 2012, figs 1–4).

The Mann-Whitney test shows that *terra sigillata* has a tendency of being found in flatter areas near road cuttings (Table 5.2). However, these tendencies do not cross the significance threshold. The field units with *terra sigillata* are relatively near Nepi with a median distance again over 1000 m nearer Nepi than with those without. Similarly to the black gloss ware, the field units with *terra sigillata* are nearer the Via Amerina than those without and thus closer to the main transport link.

The last marker ware, thin-walled ware, is easily recognisable ware typically used for beakers. Date ranges for distinctive types are 150–30 BC and 20 BC–AD 200 (Mills and Rajala 2011b; Felici 2012a). The small size of its fragments means that there is a bias against recovery in field survey. The numbers of fragments with more precise dating at Nepi do not allow closer examination of temporal patterns. The three rims from the Nepi Survey were from beakers (Mills and Rajala 2011b, 182), but elsewhere forms also include two-handled cups, small bowls and small jugs. There were recognised production centres in the environs of Rome, along the western coast of central Italy and in the Po valley (Hayes 2008, 94). At Nepi there probably was a production site at San Biagio, inside an area where the Nepi Survey did not get access, with local sites at the villa of Monte Gelato, Formello and Sutri; further established production site was located at Prima Porta (Bousquet *et al.* 2012, fig. 7, 628). There was also production elsewhere in the inner southern Etruria at least in the Bolsena area (Santrot *et al.* 1992). At Veii the beakers and cups were general central Italian production (Felici 2012a). In the Nepi Survey this pottery type was found from 38 field units (16.5%). The distribution is particularly strong in the suburban area and in the Massa area (Fig. 5.6).

The thin-walled ware distribution correlates negatively to the slope, so the pottery type is found more often at flatter areas (Table 5.1). Similarly, it correlates negatively to the distances from Nepi and the Via Amerina and does so at the 99% confidence level. This suggests a close link to the town and its emerging colonial and imperial transport and distribution networks. Nevertheless, even if we consider the longer chronological arch of this wear, this geographic patterning may suggest earlier rather than later dating.

The Mann-Whitney tests confirm the results (Table 5.2): the thin-walled ware is associated with the flatter areas near Nepi and the Via Amerina. The median distance from Nepi for field units with this ware is even shorter than with other finewares discussed. In comparison with the black gloss ware and *terra sigillata*, the median distances from the Via Amerina are clearly shorter.

The statistical exploration of the different Late Republican and Earlier Imperial fineware distributions shows concentrations of fineware consumption at Nepi and at larger villas. The distribution and higher level status sites lie nearer the main transport artery of the Via Amerina and point to the initial spread of larger higher status sites in the core area of the territory.

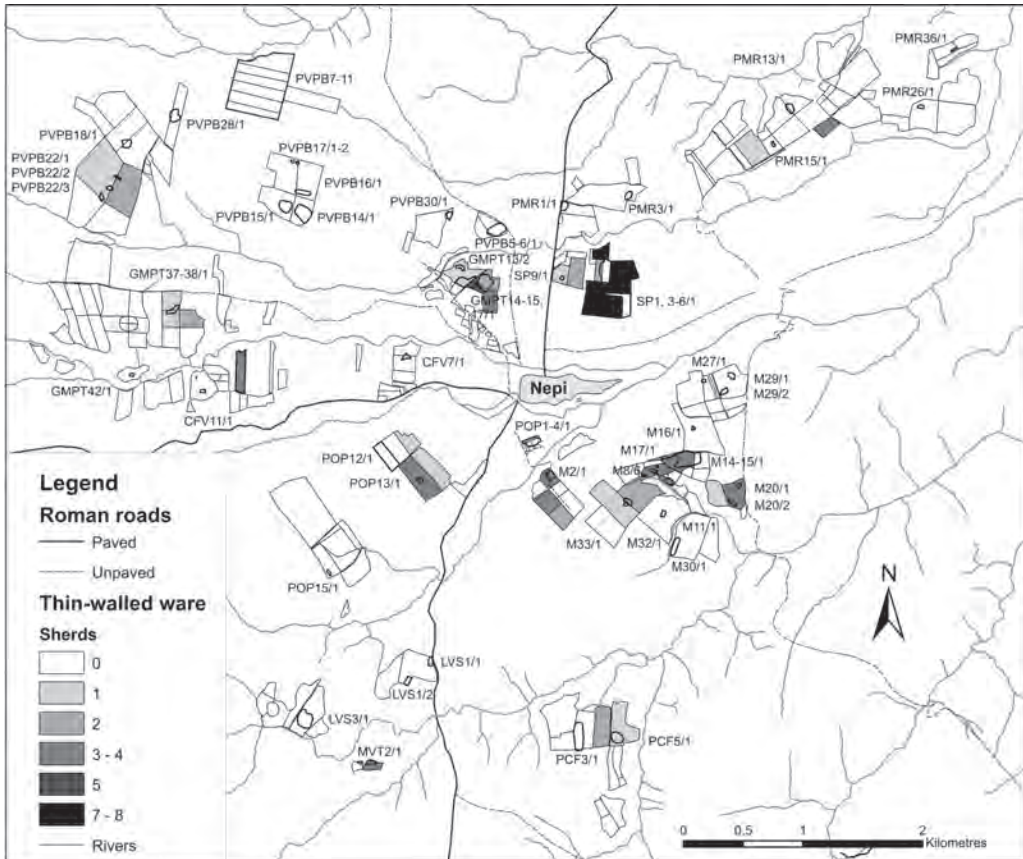


Fig. 5.6: The distribution of thin-walled ware (illustration: U. Rajala).

These higher status sites also include funerary sites, especially in the case of black gloss ware at field M11 and the apparent ritual site M2/1, both in the Massa area. The finds from site M2/1 were made within a clear square-shaped area and they presented highly varied function types suggesting that it was a special site. It was located next to the access to the road cutting to Nepi and near the rock-cut cemetery around fields M8 and M11. The structure with all three types of pottery discussed here may have been used for ritual eating and drinking associated with funeral rites, or for remembering the dead. Similarly, as Rajala and Mills (2014, 126–7) have pointed out the character of the suburban halos is unclear, even if they relate organically to the town itself, be it residential areas, suburban villas or cemeteries.

***Amphorae* and the relationship between the town and country**

A closer analysis of amphora distributions, both temporarily and geographically, has revealed unusual patterns. It is of note that the earlier amphora types, such as Dressel 1

or Lamboglia 2/Dressel 6, usually widely noted in Italian surveys (Launaro 2011, table 4.1), are almost non-existent in the Nepi Survey assemblage. Only the latter type was encountered in the suburban halo north of the town itself, suggesting use mainly at the urban centre. In the South Etruria Survey these earlier *amphorae* were prominent nearer Sutri and Narce (Fontana 2008, figs 7–9). This may suggest a local consumption and import pattern at Nepi with weaker access to that regional trade network.

Unusual striking aspect of the amphora date distribution is that it is startlingly different from the assemblage as a whole. Whereas the overall pottery numbers plunged after AD 200, the *amphorae* reached their peak during the 4th century AD (Fig. 5.2). After AD 200 the absolute amphora number levels are back at the same level as during the Augustan and Flavian periods, the peak period in the general assemblage, and they continued to rise. Thus, the drop of pottery deposition in the 3rd century AD that signifies a general decline in rural settlement is not reflected in the amphora distribution. This pattern may get its explanation in the concentration of North African amphora deposition in the urban centre and the larger higher status villas (Fig. 5.7). This underlines the way the products they contained were destined for consumption by the local elites benefiting from the wider imperial economy.

This is in stark contrast to the results from the restudy of the South Etruria Survey (Fontana 2008, figs 2 and 3). Even as the countryside seems to be depopulating in the Nepi area, such villas as the large villas GMPT37–38/1, PVPB28/1 seem to increasingly benefit from the wider imperial economy. This suggests a cessation of lower status settlements in the rural hinterland (presumably moving to the urban centre or other urban areas) with resources increasingly controlled by the owners of the larger villas. These high concentrations may relate to strong distribution of late amphora types near Sutri as revealed by the restudy of the South Etruria Survey, even if the restudy also suggested large local differences in southern Etruria (Fontana 2008, figs 9 and 10). The Via Cassia seems to have brought the imports to the area.

Since high status consumption looks like a characteristic joining the Late Republican and Early Imperial fineware distributions to the late Roman circulation of imported goods, it makes sense to compare the ceramiscene related to late Roman *amphorae*. The number of certain North African *amphorae*, the most prominent amphora type, correlates negatively with slope at the 99% confidence level (Table 5.1). The range of slope values is different and the difference is confirmed by the Wilcoxon Mann-Whitney rank sum test (Table 5.2). These figures reflect their find locations within premium agricultural land. Similarly, the southern aspect values, correlated at the 95% and confirmed with at the 97% confidence level, reflect the perceived Roman optimum aspects for Roman villas (east or south; Vitruvius 6.6.1; Columella 1.5.5). The tendency towards a positive correlation with the distance from road cuttings into the river valleys (Table 5.2) further suggests that the distribution is connected to the agricultural land use along the central plateaux between the river valleys and the location of buildings and villas at such locations. Additionally, the high North African amphora numbers in the northern suburban halo may relate to the reuse of

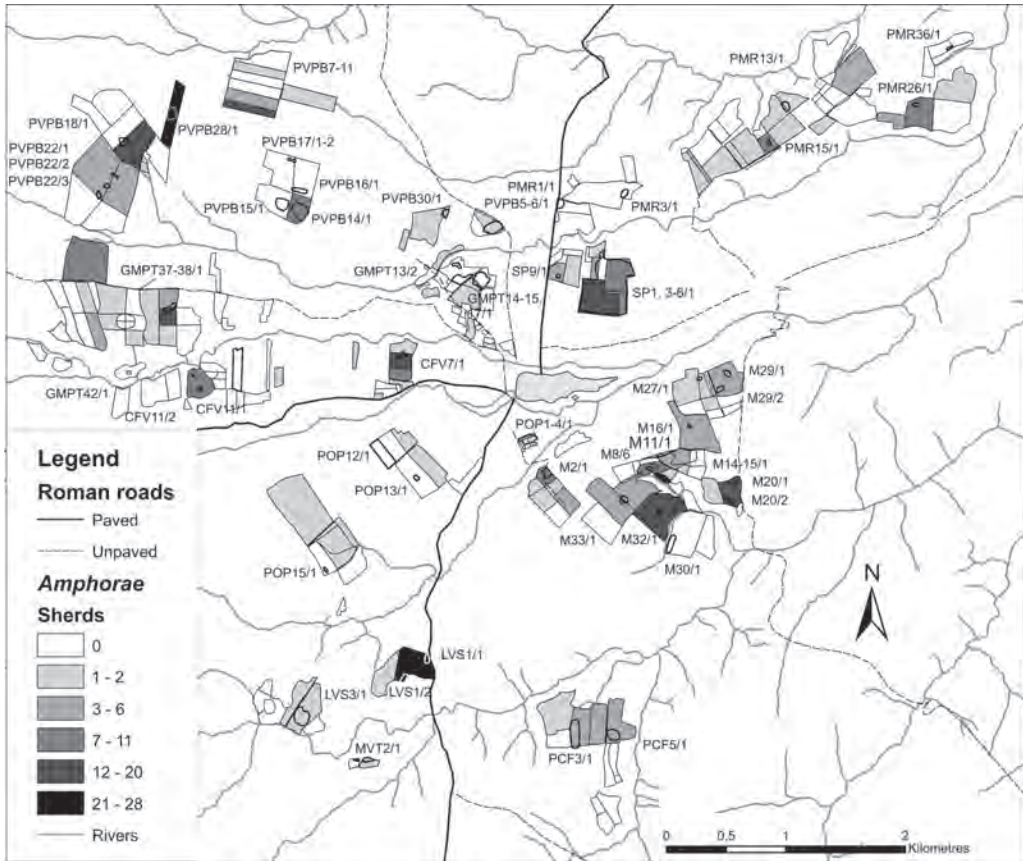


Fig. 5.7: The distribution of certain North African amphorae (illustration: U. Rajala).

amphorae as funerary containers (for this practice, e.g. Marzano 2005, 244) and this was likely to be behind some of rural depositions as well.

When the relationship of late Roman marker wares are compared to Nepi, the North African *amphorae* lean towards a negative correlation with the distance from Nepi, but the Wilcoxon Mann-Whitney test is significant. The fields with certain North African *amphorae* are notably farther away from Nepi than those without, since the medians are larger. In contrast, African Red Slip (ARS) finds, a later fine ware, seem to locate nearer Nepi in the suburban halos, in the Massa area and generally within one kilometre or so from the centre. This tableware (six out of seven ARS rims are from bowls with the remaining vessel being a dish, see Mills and Rajala 2011b, 182–3) correlates negatively with the distance from Nepi itself (Table 5.2), and the Wilcoxon Mann-Whitney test is significant at 99% (Table 5.2). The median distance from Nepi for the field units with ARS is over 1000 m nearer Nepi than those without. The distribution points to the display at certain villas and the town and deposition near potential cemetery areas in the halos and on Massa.

These differences in the distributions of the North African *amphorae* and the late Roman fineware seem to underline the late antique importance of villas in agricultural production and the town in ceramic table display. Nevertheless, the high numbers of ARS at the large villa site GMPT37–38/1 show that the rich villas were also stages of display. Contrary to the earlier finewares, neither *amphorae* nor ARS had any patterning in relation to the Via Amerina. The differences between the earlier and late Roman distributions emphasise the growing economic importance of villas and their strong performance in trade in the Nepi area. At the same time, the Via Amerina seems to lose importance in the distribution network.

Of taskscapes, Nodes and Districts

The use of these statistics in testing the significance of pottery distributions, shifts this emphasis from dating find spots or sites to a more comprehensive interpretation or characterisation of landscapes of temporal activities: looking at their economic and social interconnectedness. This approach goes beyond just presenting the distribution maps across a wider landscape (*e.g.* De Haas 2011) or pinpointing off-site distributions (*e.g.* Bintliff and Snodgrass 1988). Whilst there are more complicated methodologies recently presented (*e.g.* Bevan and Conolly 2013, especially 224–8), this approach is grounded on a firm theoretical framework and special care is taken that the methods are appropriate for assessing archaeological material with its inbuilt non-random and subjective characteristics.

By measuring the correlation between the find numbers of the marker wares and background geography, Districts can be defined as wider temporal taskscapes. In our first articles (Mills and Rajala 2011a; 2011b) we suggested equalling Districts with different sectors of the Nepi Survey, since large areas within the territory are easily defined geographically with flatter plateau areas cut by river valleys between them and in the eastern side by perpendicular ravines. One of the most obvious Districts in the Nepi area is in the northeast where the fields were visibly eroded and cut by stone quarries and had lower find quantities. The low levels of marker wares in this district means that it cannot be analysed alone in detail using this methodology, but only as part of a larger grouping. Therefore, we analyse the whole territory of one Roman town as a District (with the unifying character being the assumed central place) and aim at developing an approach of a hierarchy of districts as the evidence allows. The correlations between the temporal markers and geographical characteristics create a dispersed District, a temporal taskscape of activities in certain kinds of places, within the landscape.

Rajala and Mills (2014) suggested different ways to break up the territory and the use of distance zones was one of them. The observation of the distribution of different areas over time (Figs 5.3–5.6) shows thin-walled ware concentrating in the distance zones nearest around Nepi. In contrast, black gloss distribution is tightly related to certain Nodes/sites, and *terra sigillata* has a slightly wider spread. It is clear from these

results that the temporal Late Republican and Early Imperial taskscape defined by the marker wares and linked to higher social class, table display and feasting equal to different kinds of Districts within Nepi's territory and different elements should be used to interpret their distribution.

The black gloss ware and *terra sigillata* distributions reflect the locations of different site types: of villas, farms and funerary and roadside areas in the Eastern District on Massa and of the rich villas in the Western and northwestern District.

When one compares the black gloss and *terra sigillata* distributions (Figs 5.3 and 5.4) with that of the Northern African *amphorae* (Fig. 5.6), it is clear that the relationship with Nodes is the same. There is stability in the character of the Roman sectoring of the territory and the same Districts are apparent in different subsets of the material. They reflect the same long-term settlement system with the urban halo around the town, the strong rural eastern Massa area in the dissected area and the rich villas in the northwest. The strength of the rural economy is clear as is the strength of the main large rural villas further away in the south and northwest that flourish in the late Roman period.

A *ceramiscene* is not a one-to-one carbon copy of Ingold's (1993) taskscape, despite ceramic patterns being socially constructed in the past through supply, demand, use and reuse. Statistical GIS analysis shows changes in temporal and geographic distributions and the way dwelling created ever changing *ceramiscenes*. There were persistent Nodes in the landscape around which activities took place, changing over time, and around which other nodes formed and dissipated. The dichotomy between the town and the large villas is apparent from the Late Republican period onwards and this dichotomy became stronger and more easily perceivable by the late Roman period when the North African amphora distribution defies the overall collapse of pottery deposition and economic stagnation in the study area. The late Roman dichotomy contrasts with the Late Republican and Early Imperial expanding *ceramiscenes* where the different activities signalled by higher status tablewares relied first on the networks provided by the Via Amerina reflecting the increasing rural land use and then occupied the farther reaches of Nepi's hinterland.

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Chapter 6

The roofscapes of Petra: the use of ceramic roof tiles in a Nabataean-Roman urban context

Pirjo Hamari

Introduction

Roof tiles are a type of ancient ceramic building material, manufactured from clay and fired in kilns to produce a standardised and durable roofing material. They can be the most volume-intensive finds from the Roman Empire in the archaeological record, and a staple of Roman construction in both cities and rural areas, particularly in Italy. However, in areas farther away from the Italian core areas, tiles have a genealogy independent of this very ‘Roman’ material both prior and during the Roman period. This is particularly evident in the eastern parts of the Empire.

This paper will discuss the use of ceramic roof tiles in the Nabataean-Roman city of Petra, Jordan, in the eastern part of the Roman empire. A newly discovered roof tile assemblage from the Ez Zantur habitation quarter in Petra will be studied, placing particular emphasis on the previously unknown typology of the tiles at that site. In addition, other tile finds in the city will be examined to gain a more comprehensive picture of the dating, use and types of roof tile in Petra, particularly in the Nabataean and Roman periods. The general development of the architecture in the city will be analysed to gain an understanding of the directions of influences in terms of architecture as well as the motivation for the monumental programmes executed in the city. These will provide a framework against which we can assess the use of roof tile in Petra and the general landscape they were part of. The context of where and how tiles were used in the city will be looked at, both as related to particular buildings and more comprehensively to ‘*roofscapes*’, a term used here to reflect the visual entity that is formed by the roofs of a city or a settlement. The underlying timeframe of the study is characterised by the transformation of the Nabataean kingdom into a Roman province, the impact of which is also explored.

Even though some examples of ceramic roof tiles are known from the Mediterranean area already from the 3rd millennium BC, it is only from the 7th century BC onwards

that they were quite commonly employed in Greek and later Hellenistic architecture, mainly in public buildings but also sometimes in domestic contexts. The real explosion of roof tile use, however, was linked to the rapidly spreading building practices in the Roman state, from the 1st century BC onwards. Generally, the increased use of tile is linked to the expanding use of structural forms that required sloping or pitched roofs, such as *basilicae*, stoas, porticoes, temples and *atria*, all forms used in the expanding monumentalisation of urban centres. For pitched roofs with timber sub-structures, tile is a very useful and practical, water- and fireproof covering material, especially in areas where rain and snow are common occurrences and where the production of tiles has good prerequisites (raw materials, fuel for kilns). It is undoubtedly this advantage as a material and simplicity of manufacture that makes tile so preferred in these structures, especially in the Italian homeland but also in large areas of the Empire. This frequency of use and the durability of the tile translate into a frequency of finds in the archaeological record of the period.

Both the Greek and the Roman roof tiles systems were based on partially overlapping wider pan tiles and narrower cover tiles for covering the joints between the pans. The tiles belonging to these systems have taken different forms during various periods and in different regions, starting from the Greek Archaic, Classical and Hellenistic orders of Corinthian and Laconian tiles. From these forms evolved in degrees the later, ubiquitous flat and rectangular tile type called *tegula*, standardised and widely adopted to use in Rome in the 1st century BC (Wikander 1988; Brodribb 1989, 5–18; Winter 1993). Their use expanded rapidly, since in the western provinces of the empire, many of the new and previously non-urbanised areas swiftly adopted Roman construction methods and structural forms, and consequently, the use of *tegula*-type roof tiles. This is not to say that other roofing systems, like thatching using stone or wooden shingles, did not exist alongside fired clay tiles. There are also clear regional differences in types and use of roof tile in the west. Still, in general *tegulae* attained a dominating position as roofing material in the urban centres of the western provinces, and are thus an archaeological material that has attracted some previous attention (Brodribb 1989; Warry 2006; Clément 2013).

In Western Europe the large scale adoption of roof tiles is linked with the expansion of the Roman Empire and reflects the forms and usage in Italy, whereas in eastern provinces the situation is different. At least two explanations can be suggested for this, namely the ecological conditions and the preceding habit of use. In the eastern Mediterranean, especially in Near East, using fired ceramic tiles and sloping roof constructions does not appear to bring any functional advantages over existing roofing systems, except perhaps for an increased span in the roof, which was the result of using pitched wooden trusses. Locally, flat roofs (of stone/mud/*opus signinum*) were used traditionally and were generally well suited to the climate, and less use was made of tiles as a covering material. Another factor is the development of Hellenistic forms of urbanisation prior to the arrival of the Roman empire. The Roman Empire enters into a setting already well-established in terms of urban development, and in

addition, the Hellenistic architectural tradition using roof tiles. In this tradition, roof tiles were already used in construction, but not extensively and only in particular contexts. As the architectural traditions of the east were generally speaking influenced but not replaced by the expansion of the Empire, the use contexts of tile remained more limited than in Italy and the West, especially outside the larger urban centres. Therefore, even though during the Roman period an overall increase in use of tile is visible, both due to the renewed urban public building programmes and the common use of tile in Roman military contexts, the overall amount of roof tile from this period in the archaeological record is less than in the West, with the exception of some large coastal urban centres, like Beirut. Most importantly, though, the farther away from the core areas of the Roman state, the less information is available on the development and particulars of this practice, either from Late Hellenistic or Roman periods. Initially it can be supposed that considerable regional variation of tile forms took place during this period. The level of use and the taxonomy of tile therefore make new and interesting questions for research on the eastern margins of the Empire.

Methodological approaches and previous research

Roof tiles are a relatively uniform and standard material category, and their morphological changes tend to be slow and small. Despite this apparent uniformity, it is evident that typological variation can be traced in tiles, just as it can be traced in coarse ware pottery, and it is this aspect that will be one of the focuses of this paper. However, this particular material allows the consideration of issues beyond typology. In the context of this book, especially interesting is the context of tiled roofs in an ancient urban centre.

On a theoretical level, the way roof tiles, and indirectly tiled roofs, are present in the archaeological record can be studied as a taskscape, in the meaning of the term where past human activities of different types leave varying evidence in the landscape. Using the original idea of Ingold (1993), the concept can be broken down to smaller units, such as *ceramiscene*, defined as ‘the landscape that is created, manipulated and experienced by the manufacturing, usage and disposal of material of deliberately fired clay’ (Rajala and Mills 2011, 2). Assemblages of tiles, as parts of the *ceramiscene*, can be studied from both a temporal and a spatial point of view. The possibility is offered of not just studying separate elements, such as a building or objects, but to try to reconstruct the wider landscape. This urban landscape can be defined as a *roofscape*, which should be understood to mean the different views of roofs that are presented by a building and the city as a whole to an observer from outside and within the city (Mills 2013, 111). This concept is a relevant object of study, since different types of roofs are not only a determining feature of architecture but also indicate cultural traditions, regional availability of building materials, their different uses and religious and spiritual conceptions. (Zilincsar 2004). *Roofscapes* are, as parts of the larger architectural scheme, a visual element that has impact and

can transmit messages intended for occupiers and observers. The concept of using architecture as a means to impress and convey messages is rooted in perceiving architecture in terms of language (of power), and this language is experienced by and has an impact on people. (Tilley 1994). In Hellenistic and Imperial Roman contexts, messages of power could be embedded in the physical settings of urban centres (Zanker 1988; Grahame 1998; Hingley 2005, 81; Revell 2009, 3, 78–9, 191–3), and the monumentalisation of civic centres in the Hellenistic and Roman East can be seen as a corollary of this dialogue. This paper will assess whether roofscapes have a place in such a framework, through considering the motivation and the agency behind the public building programmes in Petra.

Few previous studies, whether on typology, fabric or distribution, are available on ceramic roof tiles in the eastern parts of the Roman Empire. Concerted studies on general or provincial level, the kind of which have been made in the western provinces (see Brodribb 1989; Warry 2006; Clément 2013), are still missing. The chronological framework of the diffusion of Hellenistic and Roman building types and specific features, such as the use of tile and brick, in different parts of the Greco-Roman world are known (*e.g.* Macready and Thompson 1987; Dodge 1990; Yegül 1992), but detailed analyses of roof tile material above the level of field reports are still very rare. One of the few more comprehensive studies on roof tile in the Near East is by Mills (2013), who focuses on the trade of ceramic building material in Carthage and Berytos/Beirut.

From the area corresponding with modern Jordan, no roof tile finds that would date from the Nabataean or Roman periods have been published in detail (for one example from the Byzantine period, see Vriezen 1995). This lack of site-specific or regional publications of roof tiles seriously undermines the possibility to suggest larger typologies or models for change within the material.

The presence of roof tiles is noted in Nabataean-Roman Petra from at least the 1960s (Wright 1961), but no analysis of form was attempted, and therefore, no previous typologies are available. The only study specifically targeting ceramic building material in Petra of this period concerns tiles from the Byzantine church and monastery of Aaron on Jabal Haroun (Hamari 2008). In addition, there are mentions of individual tiles from certain structures. In some of the more general studies of the architecture of Petra or its structures, assessments of the inclusion of tiles have been made, for example, Kanellopoulos (2002b; 2004), and Rababeh (2005). This paper presents the first comprehensive analysis on the types of roof tiles used and their context in the Nabataean-Roman period in the city and in Jordan.

Remarks on the urban development of Petra

This section briefly outlines the general historical framework of the urban development of Petra. The city owes the success of this development principally to its advantageous location at the crossing point of several main caravan routes, which in Antiquity connected the Mediterranean area with Syria, Mesopotamia, the Arabian

Peninsula and Egypt. The nomadic Nabataeans began to settle down and grow wealthy due to the east–west trade that crossed their lands between the 1st century BC and the 3rd century AD. The wealth generated derived most of all from the lucrative trade in spice and frankincense (Schmid 2008a). It was this wealth that allowed the massive investment in urban infrastructure. This infrastructure served trade-related needs but was also monumental to express the growing power and influence of the Nabataean elite and royalty both to fellow citizens and to outsiders. Excavations that started in the beginning of the 20th century in Petra have gradually revealed a number of imposing public and private monuments and buildings in the city.

Despite the challenges posed by the lack of building inscriptions and the relatively limited areas yet excavated to understanding urban development in Petra, a general framework for the major monuments and phases has been worked out (e.g. MacKenzie 1990; Parr 1996; 2007, 273, 295; Tholbecq 2007). The topography of the city is dominated by the major natural drainage depression of the Wadi Musa, which runs east–west along the bottom of a wide valley surrounded by the as-Shara mountains. Along this *wadi*, the city grew on both sides, with the main road running along the southern bank and major urban monuments situated on both sides (Fig. 6.1). According to current understanding,

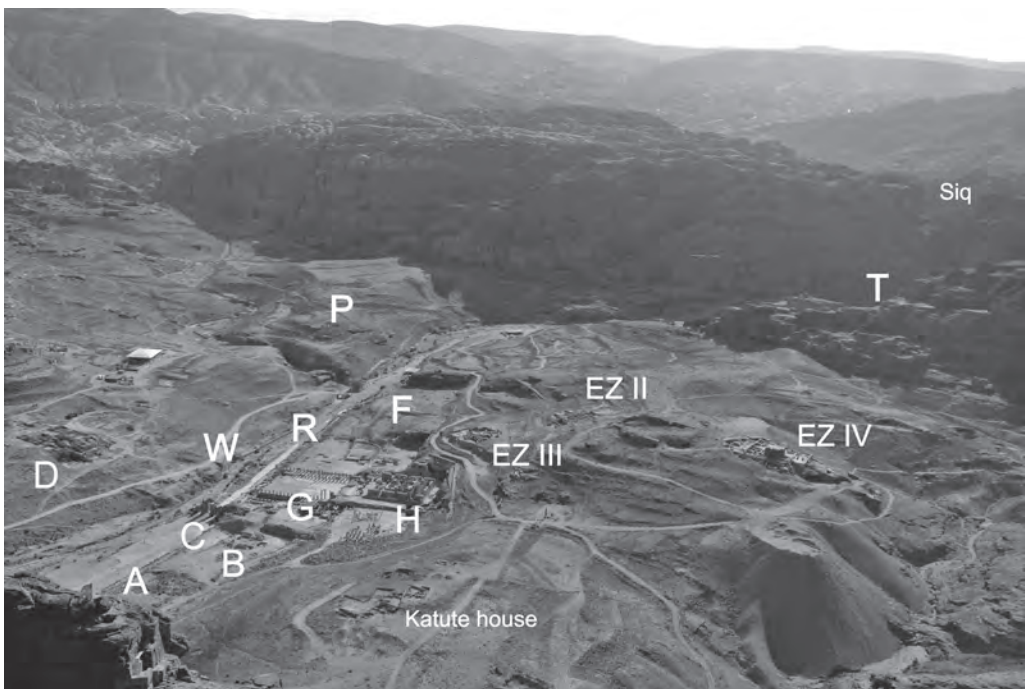


Fig. 6.1: The city centre of Petra from Umm al-Biyara summit. A: Qasr al-Bint temple; B: Small Temple; C: Temenos Gate; D: Temple of the Winged Lions; G: Lower Temenos of the Great Temple; H: Upper Temenos of the Great Temple; R: Colonnaded Street; F: Upper Market; EZ IV: Ez Zantur IV house; EZ II: Ez Zantur II house; EZ III: Ez Zantur III house; P: NEPP area; T: Theater; W: Wadi Musa (Photo: Majja Holappa).

the first extant built remains are domestic and perhaps trade-related buildings, datable from 3rd to early 1st centuries BC, consisting of walls and foundations of rooms on the banks of the *wadi* (Parr 2007, 275, 286; Graf 2013; Renel and Mouton 2013). Towards the end of the 1st century BC, building activities increased dramatically in Petra. An immense construction boom took place both in the private and the public sphere, introducing to the city fabric monumental funerary monuments and freestanding buildings, including temples for major Nabataean deities. During the late 1st century BC and early 1st century AD, the city developed a substantial urban infrastructure, including royal palaces, civic buildings, the main street and a sophisticated water management system (Schmid 2008a, 374). Several large private houses excavated so far in Petra also date to this period (Kolb 2007). By the time of the Roman annexation of the kingdom in AD 106, Petra already featured a well-established cityscape, although there are also indications of a rebuilding or renewal programme in the city during early 2nd century AD. The peak prosperity period of the city lies between the 1st century BC and the 3rd century AD. By the Byzantine period, Petra was still inhabited, but as a smaller settlement than before (Fiema 2001; 2003; Parker 2009).

Roof tiles from the Ez Zantur IV house

The house on the Ez Zantur IV site (Fig. 6.1, EZIV), situated on the hill which rises on the south side of the main street of Petra, is one of the Nabataean luxury mansions found in the centre of the city. It was excavated between 1996 and 2001 under the direction of B. Kolb (Kolb 2012). Ez Zantur IV house was a large residential peristyle mansion built of local sandstone blocks, consisting of courtyards and banquet halls, hypocausts for heated rooms and baths, painted wall decoration in Pompeian architectural style, mosaics, fine architectural sculpture and highly sophisticated stucco decoration. The area of this two-story house is at least 1200 m². The *terminus post quem* for the construction of the house is around AD 20, or early decades of the 1st century AD, when it already got its basic form (Kolb 2007, 167), on the basis of Nabataean pottery found incorporated in the original floors. There was a restructuring phase in late 1st century AD, possibly due to an earthquake, after which a small bath and the hypocaust-heated winter *triclinium* in the south-west corner of the building were probably added to the structure. The house remained in use with only minor alterations, until a devastating earthquake hit the city on the 19 May, AD 363, which caused extensive damage in the city, including the Ez Zantur house. This led to an abandonment of the structure, although there might have been some small-scale rebuilding and limited use even after this (Kolb 2001; 2007, 167–8).

In several parts of the house, excavations brought to light fragments of ceramic building material from different contexts. In total, over 1000 kg of roof tile, brick and ceramic air flue (*tubuli*) fragments were collected at the site. This paper will focus on the roof tile finds from the house. It was possible to divide the roof tile fragments into two major types on the basis of their morphology and fabrics. The establishment

of types in this case was possible since the assemblage was large, stratified and well-recorded. Some other, much smaller typological groups could also be distinguished, but only the two largest types defined are discussed in detail in this paper. A more detailed study, analysing the particulars of the whole assemblage, is under preparation by the author.

The first tile type (Ez Zantur Type 1) is a solid, simple flat pan tile with a brownish-red fabric (Fig. 6.2). The tiles have thick, squarish flanges running the full length of the long sides, without any flange or corner cut-outs. Their form is more or less rectangular, not tapering, with a low, narrow ridge running parallel to the upper short edge of the tile, on the upper surface of the pan c. 3–5 cm from the short edge. The pan is relatively thick, over 3 cm in average. The upper surface has been well smoothed, whereas the lower surface is rougher but flat. The tile may originally have been coated with a thin layer of slip, in a colour identical to that of the fabric. The complete width of the tile could be measured from some of the larger recorded fragments in Ez Zantur IV, and is in average close to 41 cm. As the floor structure of the winter hypocaust room (see below) contains complete examples of this type,



Fig. 6.2: Ez Zantur Type 1 pan roof tile from Ez Zantur IV house, featuring full flanges and a ridge on shorter end of the tile (Photo: P. Hamari).

also the full length could be measured. This varies between 51 cm and 55 cm. These dimensions are repeated in the complete tiles of this type, found in the unpublished Nabataean House on Ez Zantur III (115/H, Abs. 2, FK. 1133, see Schmid and Kolb 2000, 20, figs 428 and 430), some of which could be measured for this study. The average size of this type can therefore be estimated of having been c. 53 × 41 × 3 cm.

The second type (Ez Zantur Type 2) is an angular, flat pan tile with a buff-coloured rippled surface finish, pinkish red fabric and sharply rectangular and narrow flanges terminating c. 5 cm before the edge of one short end (Fig. 6.3). Also this type has a low ridge on the pan along the upper short edge, at the distance of c. 5–7 cm from it. In addition, it carries thin line-like vertical impressions on the upper pan surface, close to the flange. These lines run parallel with the flange, until the ridge at the upper short edge of the tile, where they form a rectangle between the ridge and the edge. Within this rectangle, between the ridge and the edge of the tile, is a circular impression, c. 1.5 cm in diameter. Although the lines and the circle are probably features related to the manufacturing process, they are however determining elements and distinctive features of this type. As there are no complete or even partially complete examples



Fig. 6.3: Ez Zantur Type 2 pan roof tile from the Ez Zantur IV house, featuring a rippled surface, a sharp flange profile and a line-framed circular impression on the pan surface (Photo: P. Hamari).

of this type in the material, the full measurements cannot be determined. Most likely, they are roughly comparable to those of Ez Zantur Type 1, with the exception of thickness, which, at the mean value of c. 2 cm, is noticeably less than in Type 1. The fabrics in the two types are macroscopically observed alike: the rather coarse mass contains frequent small subangular white inclusions of homogenous size and nature (coarse sand?) with occasional darker, larger grains – this is a generic roof tile paste in quality. The colour difference between the fabrics is, however, noticeable.

The stratigraphic contexts in the structure provide clues for the dating of tile, although the analysis of these is still underway. Most *loci* with roof tile finds are from the final collapse and fill of the rooms, except in some specific cases. Among the *loci*, there are two specific contexts that deserve closer examination. The first specific context comes from room 14, the heated winter *triclinium*. Here, complete tiles were used as the levelling first layer of the floor on top of the hypocaust *pilae*, many still in situ. These tiles in the floor are all clearly Ez Zantur Type 1 tiles. As the construction of the hypocaust is preliminarily dated to the restructuring event of the late 1st century AD (Kolb 2007), this gives the tiles a *terminus ante quem* of c. AD 100. This dating is supported by the fact that the final destructions phases of the house in Ez Zantur III can be dated to the end of the 1st century AD or to the beginning of the 2nd century AD, again providing a *terminus ante quem* dating for the tiles representing this type (Schmid and Kolb 2000, 25). The second specific context is a heavy concentration of tile fragments from Room 37 in several successive *loci* representing collapsed structures, and consisting mostly of Ez Zantur Type 2 tiles. At the moment, no exact chronology can be presented for this context, or contexts, other than that it is probably the result of a collapse caused by the AD 363 earthquake, left mostly undisturbed. Kolb thinks it possible that a small sloping roof has been in place in the first story gallery roof beside a courtyard (Kolb 2007, 162), and the concentration is the collapse of this roof. This is indeed a possibility, although would be the first example of such a covering in a domestic structure in Petra (see discussion below). On the basis of this stratigraphy, it seems possible to assume that Type 2 represents a later tile type than Type 1, although for the moment this relative chronology remains tentative.

The use of these roof tiles in the house presents a further interesting issue. There are marks of modifications on many of the tile fragments among the finds. These marks include traces of cutting, chipping or sawing the fragments intentionally to desired sizes, pick marks after the levelling of surfaces, and traces of mortar covering all surfaces. This indicates that at the time of their last use, before the final collapse of the house, they were reused as secondary building material in the house. Most likely, considering the nature of the *loci* in general (mostly material from the collapse of walls) and the structure of the house, they were reused as fill elements in the construction between the ashlar blocks or as specific constructional units as in the hypocaust area. In fact, it remains questionable whether or not they were used as roof tiles in the house at all at any point in time. There is no evidence for complete tile roofs of Nabataean private residences in the area. On the contrary, there is ample evidence

that the house and other similar houses in the area were roofed with flat beam-and-plaster or clay roofs, sometimes even with stone slabs, which were supported by arches. Even the largest mansions in Petra seemingly used this flat beam-and-plaster roof native in the area, which was well suited to local conditions (Stucky 1996, 44, 48–9; Schmid and Kolb 2000; Rababeh 2005, 174–87). Neither is the amount of tiles, large as it is, sufficient for roofing a complete house of this size, even taking into account any post-use robbing of material that took place in the house. All this does not eliminate the possibility that some of the tiles derive from smaller roof areas covering the balconies, as suggested by Kolb. The *loci*, the state of the finds and the general architecture all indicate that most of the material is only in secondary use in the house, with a strong possibility that this material did not originate from the roof of the structure itself but from some other source outside the building.

Where would it be possible to obtain discarded or recyclable roof tile material in Petra in the 1st century AD? Surely, tiles were not imported to Petra as recycled material, but need to have existed complete in the city at some point. In all likelihood, they were acquired for the house from discarded or second-hand materials from the city area prior to their reuse in the construction and/or restructuring of the house in Ez Zantur IV. That such material was available, is on a general level demonstrated by the city dump in the Katute area, containing discarded construction material from 1st to early 2nd centuries AD and probably related to the major remodelling of the city after the annexation in AD 106 (Parr 1960; Fiema 2003, 46–7; Kanellopoulos 2004, 238). There are however no particular mentions in the sources to indicate whether tiles are present in this dump. Despite this, the tile material needed for the house would in all likelihood come from excess, used or discarded tile material from other earlier contemporary building programmes in the city centre. These will be analysed in the next section, in order clarify where and how roof tiles were actually used in the city, and to better understand the greater context of tiled roofs.

Nabataean-Roman building programmes in Petra – comparative observations

In general, evidence for tiled roofs in Petra consists of mentions of roof tiles in the excavation records, however usually without further information or description. In this section, the reports and publications concerning the structures are followed as they are and no new interpretations regarding the architecture of the structures are attempted. The assessment of what structures were covered with tiles is based on the presence of sufficient amount of roof tile as well as suitable architectural, making the use of tile for roofing plausible. Mostly this means pitched roofs. Particular attention is paid to the type of tile, if this is documented. No material referred to below has been physically studied for this paper, only published examples are used.

The first group of structures to be studied are the temples in the city centre: the Qasr al-Bint al-Firaun, the Temple of the Winged Lions, and the so-called Small

Temple. The first two were built in the Nabataean period, while the third dates from the Roman period. The Qasr al-Bint al-Firaun is the main Nabataean temple at the western end of the main street (Fig. 6.1, building A). This temple was a tripartite *tetrastyle in antis* built of local sandstone, dedicated to a Nabataean deity (probably Dushara) and the most important sanctuary in the city. The temple had columns topped with floral Corinthian capitals, high-level figurative stucco ornaments and frescoes (Zayadine *et al.* 2003). Its construction is dated to the late 1st century BC or early 1st century AD, the precise point of time remaining a debated question (Zayadine *et al.* 2003; Renel and Mouton 2013, 75; Al-Bashaireh and Hodgins 2014). During its excavation, a 'large number' of roof tiles were discovered from the *pronaos*, *naos* and eastern *adyton* compartment of the temple (Zayadine 1985, 242–43; Rababeh 2005, 189–90). Reconstructions differ as to how much of the temple space was tiled. Rababeh (2005, 197) suggests that only the pediment and *pronaos* roof towards the street was covered with tiles. The main temple would have been flat and the roof accessible by a staircase. Zayadine, however, is of the opinion that the whole temple has had a tiled roof (Zayadine 1985; Zayadine *et al.* 2003). In this paper, the version proposed by Rababeh is preferred, since it most closely fits the evidence of the tiles themselves. In addition to the temple proper, excavations indicate that an outside portico surrounding the podium of the temple had a sloping roof covered with tiles (Zayadine and Fajarat 1991, 293). No further published information exists on the types of tile used either in the temple or the portico, with the exception that they had flat pans. As for the dating of the use of tile in the temple, the pitched pediment and its roof is clearly part of the original, late 1st century BC–early 1st century AD structure. The construction of the outer portico should be dated to the same period, although it has been suggested that its tiled roof might be a Roman period addition to the structure (Zayadine and Fajarat 1991, 293).

A similar case is presented by the Temple of the Winged Lions, named after the figurative capitals found in the temple, featuring finely executed winged lions. (Fig. 6.1, building D). This temple was a rectangular *tetrastyle in antis* structure with a *pronaos* and *naos*. The *naos* area contained a portico on two opposing sides flanking an altar platform in the middle (Rababeh 2005, 203–7). According to the current published data, the construction of the temple can be dated to early 1st century AD (McKenzie 1990, 139; Hammond 1996). Fragments of pan tiles, with flanges and pans of thickness 3.1–3.2 cm, were found in the *pronaos* and *naos* area (Hammond 1977–8, 98; 1996, 35). There are three different reconstructions suggested for the roof. Netzer (2003, 83) suggests a flat structure throughout, whereas Hammond (1996, 36) suggests that at least part of the temple was unroofed, and some areas roofed with tile. Rababeh (2005, 207–10) suggests a solution similar to that in the Qasr el-Bint: the *pronaos* roof was pitched and tiled, and the *naos*, including the porticoes, covered with a flat roof. On the basis of the tile finds, the suggestion by Rababeh, however hypothetical, seems most likely. One of the tile fragments from the early excavations has been published by Hammond (1975, 151, pl. vii, 1). Based on this illustration,

the tiles in the structure are characterised by a distinctively profiled and inwards-leaning flange with a lip. This type is clearly neither of the Ez Zantur tile types, but represents a different type in Petra. No exact dating can be given for these tiles. It is possible that the temple roof was not repaired after an earthquake around AD 100 brought it down (Hammond 1975, 17). This would indicate that these tiles belong to the types used in the 1st century AD in Petra. The temple was finally destroyed in the AD 363 earthquake, therefore giving any finds from it an additional *terminus ante quem* dating to mid-4th century.

The third temple site in the city proper where roof tiles were found, is the so-called Small Temple, situated between the Great Temple and the Qasr al-Bint *temenos* (Fig. 6.1, building B; Fig. 6.4). It is a small *distyle in antis* with a simple *cella* constructed of ashlar blocs, and decorated with stucco and marble revetments. The excavator dates its initial construction to the 2nd century AD (Reid 2006), which would place this event to the Roman period, although this dating is uncertain (see Schmid 2008b). According to the excavator, the temple was destroyed in an earthquake in AD 235. The publication of the temple cites 12,000 roof tile fragments among the finds, the vast majority of which were found in a single stratigraphic layer inside the main structure (Reid 2006, 75). This is clearly the remains of the collapse of a tiled roof, possibly a double-pitched roof covering the entire structure. In the context of roof tiles in Petra, it is unfortunate that no further studies have been published so far on this clearly unique tile assemblage. The single image of tile included in the publication (Reid 2006, 76, fig. 32) is not a very solid base for interpretation, but seems to indicate that the type of tile used in the temple represents Ez Zantur Type 2. The rippled surface of the fragment is clearly visible in the image. If the chronology for the temple is accepted, this would anchor the use of this tile type in a primary context to the 2nd century AD, and if only the dating of the collapse of the roof is used, not later than mid-3rd century.

Of the other monumental structures in the city, one of the most relevant to this discussion is the large monumental complex excavated opposite the Temple of the Winged Lions. The excavators have used the name of 'Great Temple' for this complex, although its function is more probably a royal banqueting hall rather than a temple (Joukowsky 1998; see Joukowsky 2007, 350–5 for sources in this discussion). The complex has a long history of construction and restructuring, but for this paper, the most important are the phases IV (Nabataean, from the last quarter of the 1st century BC to the beginning of the 1st century AD) and V (early 2nd century AD) (Joukowsky 2007), which are the main monumental phases of the complex. The complex consists of a lower paved area flanked by a triple colonnade accessible from the main street (Lower Temenos, Fig. 6.1, G; Fig. 6.4, G) and an upper monumental area (Upper Temenos, Fig. 6.1, building H; Fig. 6.4, building H; Joukowsky 2007). The complex was decorated with an abundance of magnificent frescoes, coloured stucco and figurative Hellenistic-type sculpture. Regardless of the function of the complex, parts of the structure were certainly roofed with tiles, since a large number of tile

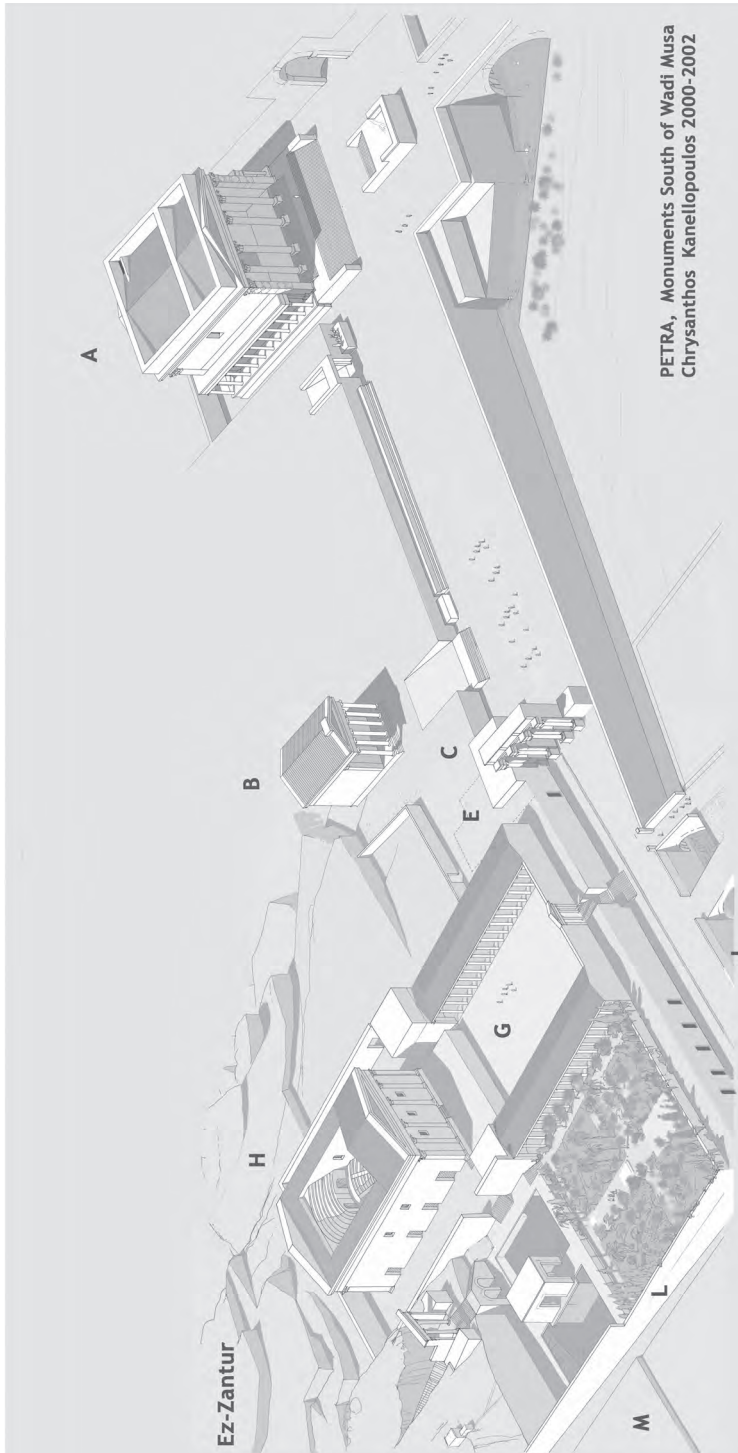


Fig. 6.4: A reconstruction of the monuments south of the Wadi Musa. A: Qasr el-Bint temple; B: Small Temple; C: Temenos Gate; E: 'Baths'; G: Lower Temenos of the Great Temple complex; H: Great Temple and its Upper Temenos; J: Pool and Garden complex (paradeisos); M: 'Middle' Market (after Kanellopoulos 2002b, 254, used with permission).

fragments (over 6000 fragments collected; Rababeh 2005, 210; Rababeh forthcoming, 30, note xxxi) were found, mainly on the outer edges the lower colonnades, in its exedras, in the upper colonnades and in the South Passageway behind the main upper structure (Joukowsky 1998; Rababeh 2005; Rababeh forthcoming, 30). Rababeh proposes that the *in antis* structure in the middle of the Upper Temenos had a pitched, tiled *pronaos* but flat roofs over the *naos* area, and that the upper area side porticoes carried single-pitched roofs covered with tiles. This seems the most logical of the proposed roofing systems (for others, see Joukowsky and Basile 2001; Kanellopoulos 2004), and would structurally and in outlook be a similar solution to the system used in the Nabataean temples discussed earlier (Rababeh forthcoming, 33). The Lower Temenos side colonnades were also probably covered with a sloping roof and tiles. The tile fragments found in the extensive excavations are not published yet, although one of the tiles found in the South Passageway on Upper Temenos is illustrated in the second volume of the excavation (Joukowsky 2007, 250–1, fig. 5.51). On the basis of the illustration, the tile looks very similar to the Ez Zantur Type 1 tiles, with simple clean lines and a prominent ridge on the pan. As for the dating of the tiles, according to Rababeh we cannot discern whether they come from deposits related to Phase IV or Phase V (Rababeh forthcoming, 36). However, as the type seems to be in use elsewhere in Petra already during the Phase IV of the Great Temple, it is perhaps possible to associate the tiles already with this Phase. In any case, they should not be later than early 2nd century AD. The ongoing study of the excavation results may in the future further clarify the clearly substantial use of roof tile in this structure.

A Roman type theatre was built at the beginning of the 1st century AD, with the seating area carved into the rock face near the entrance to the Siq at the eastern end of the street (Fig. 6.1, building T). It was in use until the earthquake of AD 363, and possibly even later (Zayadine 1997, 48–50). The excavator dates the construction to early 1st century on stylistic basis (Hammond 1965), although there were small restructuring phases in mid-1st century AD and in early 2nd century AD (Zayadine 1997, 50). Tiles were found from the site in excavations ‘in some quantity’ (Hammond 1965, 68), and it is assumed that there were tile roofs on parts of the structure, possibly covering the *scaena* building – the only logical place to use a sloping roof. Hammond describes the tiles as ‘heavy, rather coarse and crudely formed’ (Hammond 1965, 68). According to the one published picture, although by no means a certain attribution, the tiles resemble Ez Zantur Type 2 (Hammond 1965, pl. xxxix, 5–6), with their rippled surface, the ridge on the pan more distant from the short edge, the thin pan and the ‘light red ware’ cited in the report (Hammond 1965, 68). As the more exact find contexts of the tiles are not described, it is not possible to clearly determine whether the tiles recovered are related to the initial construction period or to the later restructuring phases.

Of the Roman period building programmes, the most extensive work was the realisation of the Colonnaded Street with related structures in the area between the Upper Market and the monumental Temenos Gate (Fig. 6.1, building R). This work is

dated to the beginning of the 2nd century AD (Fiema 1998). The old Nabataean period rubble-paved road and shops flanking it were incorporated into a classicising, more ambitious and uniform landscape plan, with street pavement and sidewalks paved with stone. A double colonnade flanked the street on its southern side. The roof over the colonnade was tiled: roof tile fragments were found in the excavations on the south side of the street, and there are remains of a single-pitched beam structure over the shops and the portico in front of them (Fig. 6.5; Fiema 1998; Kanellopoulos 2001b). On the northern side of the street, probably only an unroofed single colonnade was used (Fiema 2008). The published reports do not provide further information on the tiles found, and therefore their type cannot be determined at this point. Related to the construction of the Colonnaded Street, as part of a grand reorganisation of the space, are the monumental gate and the steps leading up to the Upper Market from the Street (Fig. 6.1, building F). A rare building inscription can be associated with this gate, dating the construction to AD 114, that is, to the reign of Trajan. During

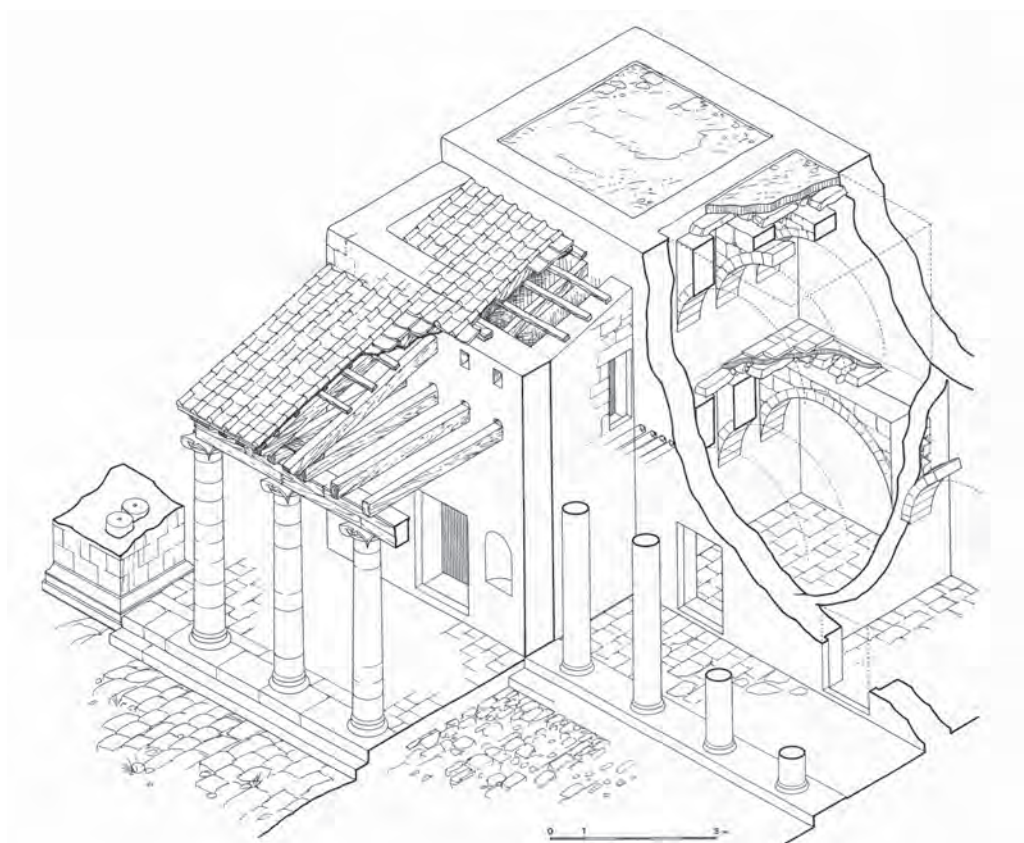


Fig. 6.5: A reconstruction suggestion of the Colonnaded Street with shops and the tile-covered side portico, showing the development of the area from the Nabataean to the Roman period (after Kanellopoulos 2001b, fig. 2, used with permission).

a recent test excavation of the Upper Market, 'a significant number' of roof tile fragments were found in the north-west corner of the space (Alcock *et al.* 2010, 159). It is possible that they come from the single-sloping roof of the portico that presumably, as suggested already by Kanellopoulos (2002a), surrounded the entire market area. The report describes the tiles as 'plain and unremarkable' (Alcock *et al.* 2010, 159). One of the tiles carries on its pan an inscribed Nabataean letter, an occurrence for which another example is known from the Temple of the Winged Lions (Hammond and Johnson 1994, 336), but for which no illustration is provided for. The illustration of the fragment from the Upper Market shows it is an edge fragment of a flat pan tile, with a ridge running parallel to the short edge (Alcock *et al.* 2010, 159, fig. 8). Although a positive identification of the type of the tile is not possible on the basis of this photograph, it can be noted that the ridge, as it is situated c. 5 cm from the edge, more closely corresponds to the position of the ridge in the Ez Zantur Type 2 tiles than to Type 1. This attribution is further supported by the other illustrated tile from the excavation (Alcock *et al.* 2010, 165, fig. 13:4), which is characterised by the sharp and angular profile of the flange and a relatively thin pan, although the fabric colour given is darker (2.5YR 5/8 red) than in the Ez Zantur Type 2 fabric. Although no firm dating can be provided for any of the tiles, it is possible that they are contemporary with the Upper Market portico. This, in turn, is suggested to have been built at the same time as the street, the Trajanic gate and the stairs, around the time of the annexation in early 2nd century AD (Fiema 1998; Kanellopoulos 2002a).

In addition to the structures discussed above, some supplementary data on the use of roof tiles in the area is provided by two monuments not situated in Petra city itself or not extensively studied yet. First of these is the recently published monumental hall in Beidha, possibly a royal banqueting hall, some 10 km north from Petra city. The excavators associate the tiles found on the site not with the covering of the hall, which probably had flat roofs, but with other structures, possibly a bath. The complex itself was constructed around 50 BC and remained in use only until 30/20 BC, when it was destroyed (Bikai *et al.* 2008, 470, 494–5). No further information on the tiles themselves is published, so any possible types for these very early tiles cannot be determined. Secondly, finds of roof tiles have been made in the new survey conducted by the NEPP project in the eastern part of the city centre (Fiema pers. comm.). The survey yielded information on a large monumental building complex, possibly the Nabataean royal residential quarters, located in the area in front of the royal tombs (Schmid *et al.* 2012; Fig. 6.1, building P). These finds indicate that there are further contexts of use of roof tile in Nabataean monumental building, especially if future studies on that site can demonstrate that some parts of the structure were covered with sloping and tiled roofs.

These individual buildings provide the evidence for the presence of roof tiles in Petra. To further understand why and from where ceramic roof tiles appear in these contexts, it is necessary also to consider the models of and influences on the architecture in general. Studies concerning such influences make it evident that the

Nabataean monumentalisation of the 1st century BC and the 1st century AD had its forerunners and models in the palace architecture of the Hellenistic East. The Nabataean kingdom's contacts with Ptolemaic Egypt, especially Alexandria, and the Hellenistic Seleucid kingdom in Near East provided the examples of what was expected from an urban centre (McKenzie 1990; Schmid 2008a). Also the extensive Herodian building projects in the neighbouring Judaea, combining Hellenistic and Early Imperial Roman elements, seem to have had an impact on the monumental architecture in Petra (Roller 1998; Schmid 2009a). All these influences lead to the selection of specific building types (temple types, colonnades and royal residential quarters), influenced by Hellenistic models and to the use of stucco decoration, painting and marble. Moreover, this decorative freestanding architecture in Petra was of high quality and very cosmopolitan; it is possible that specialised craftsmen from Alexandria were employed in Petra when these became more available after the fall of the Ptolemies in 30 BC (Schmid 2008a, 372, 376–7). However, even when the freestanding architecture in Petra is very contemporary, there is at the same time at play an *interpretatio Nabataea*, a hybrid form where external influences are visible, but which also includes original elements of a more oriental type (Schmid 2008a). This dual imagery of architecture is mirrored in small finds, where at first stage, purely Hellenistic prototypes are borrowed and absorbed; then local variation occurs and finally develops into an individual style. This development towards a proper Nabataean style in small finds, coinage and ceramics can be observed from c. 50 BC onwards (Schmid 2001; Parlasca *et al.* 1997; Tholbecq 2007).

It is because of this direction of architectural influences that the Nabataean temples in Petra, Qasr al-Bint and Temple of the Winged Lions, display closeness to Hellenistic or Greco-Roman temples, adopting a style different from traditional Nabataean sanctuaries (Netzer 2003; Kanellopoulos 2004; Tholbecq 2007, 133–5). For example, the pitched roof over the Qasr al-Bint temple entrance gives the structure a classical style pediment; this kind of architectural form is also used in pediments of the heavily Hellenised rock-carved tomb facades, like the Khazneh (Rababeh 2005, 197). Other structures, like the Great Temple with its colonnaded squares, are also forms directly adopted from the civic or palace architecture of the nearby Hellenistic or Hasmonean kingdoms. These influences are also visible in residential building of the more monumental type, the mansions and villas which show Hellenistic and Roman influences in their decorative aspects (paintings and stucco), but also regarding the room types and configurations (Kolb 2007, 146–64). The whole city structure indicates that the planners and architects of the Nabataean city were familiar with the calculated staging of monuments as it developed during the Hellenistic period in the Middle East and was later adopted by Romans (Schmid 2008a). The agents behind this impressive monumental architecture were the royal court, the aristocratic classes and the rich traders, investing the trade-generated wealth in urban infrastructure, and striving towards Hellenistic models of urbanisation. Most notable from the point of view of this study is that one consequence of this deliberate 'Hellenisation' is the

introduction of roof tile as a construction material: with this kind of architecture, structural forms that require pitched roofs were used and, thus also roof tiles were employed.

The Nabataean period came to an end in Petra with the annexation of the kingdom by the Roman Empire in AD 106 (Freeman 2008; Parker 2009). The Roman period saw a transformation of the centre: a large remodelling and embellishment programme took place in the city. However, even if this Roman transformation had a substantial impact to the city structure, in terms of styles and architectural influences the change was not abrupt. This is exemplified by the new structures that include tiled roof elements, which are the Small Temple and the Colonnaded Street with its connected structures. Even if the outlook of the Small Temple was slightly different from the earlier temples with its simple double-pitched roof, covered completely with tiles, generally speaking it followed the standard and shared Greco-Roman architectural traditions of the earlier monumental buildings (Joukowsky 2007). The Colonnaded Street is a feature frequently added to the urban centres of Eastern Mediterranean during the Roman period, although examples are also known from some cities in the area from the Late Hellenistic period (Bejor 1999, 9; Rababeh *et al.* 2014). Its impact on the city structure was considerable: the surface of the roof over the south colonnaded sidewalk covered almost 1000 m², which means that a substantial area was covered with tiles and considerable finances involved (Kanellopoulos 2001b; Fiema 2008). Again it is not the style of architecture that changes but the way it is used to transform the city structure. With regard to roof tiles, this means that the architectural contexts where they are used are expanded in the Roman period but ultimately not substantially changed.

The use of ceramic roof tiles in Nabataean-Roman Petra – discussion

The data presented here allows the construction of the sequence and the contexts for roof tiles in Petra (Table 6.1). Ceramic roof tiles were present in structures in Petra from the early stages of monumentalisation, which in terms of dating means at least from early 1st century AD. This is evident from the presence of tiles at Qasr al-Bint, the Temple of the Winged Lions and possibly the Great Temple. If the chronology assumed for the site in Beidha is correct, there is a possibility that roof tiles were already used in Petra area in the middle of the 1st century BC. Moreover, the dating of the hypocaust to AD 100 in Ez Zantur IV house only gives the tiles incorporated into it a *terminus ante quem*. This means that the tiles, which are reused in that construction, might also be considerably older. There was a tendency in earlier research to assume that roof tile use in Petra began at the earliest with the Roman period (see Wright 1961, 28; Zayadine and Fajarat 1991, 292). It now seems evident that ceramic roof tiles were in use in the Nabataean period in Petra, a century or even more before the Roman annexation in AD 106.

A tentative relative chronology for Ez Zantur Type 1 and Ez Zantur Type 2 tiles can be suggested as follows. The find contexts from this house and those from Ez Zantur

Table 6.1: Summary of structures with Nabataean or Roman period roof tiles in Petra and surroundings

Structure	Date (of context of tile use)	Type
Beidha Hall	Prior to 20/30 BC	?
Ez Zantur IV House	Prior to AD 100	Type 1
	Prior to AD 363	Type 2
Ez Zantur III House	Prior to late 1st century AD	Type 1
Qasr al-Bint	Late 1st century BC or early 1st century AD	?
Temple of the Winged Lions	Prior to AD 363, probably from the time of construction	Unknown type, not EZ 1 or 2
Great Temple	Early 1st century AD	Type 1
Theater	Prior to AD 363, possibly from the time of construction in 1st century AD?	Type 2?
Small Temple	2nd century AD	Type 2
Colonnaded Street and Upper Market	2nd century AD	Type 2? from Upper Market

III show that the Ez Zantur Type 1 tile was present in Petra already during the 1st century AD, if not earlier. This type can also be linked to structures of the first period of Nabataean monumentalisation, as similar examples were recovered from the Great Temple. In that structure, their period of use is possibly from the late 1st century BC to early 1st century AD, and no later than early 2nd century AD. Unfortunately, the Ez Zantur IV house does not provide such clearly datable contexts for the tiles of Ez Zantur Type 2. However, this type is probably encountered in the Small Temple and possibly in the Upper Market colonnade, both having a construction time and primary period of use of tile in the 2nd century AD. The dating for the possible Type 2 tiles in the Theater is not consistent with this, if the finds there are to be linked to the time of the construction of the structure. Without further analysis of their types and possibly more exact contexts in the theatre, this remains an unsolved question. Regardless of that, the other comparative finds and the unstratified *loci* in the Ez Zantur IV house suggest that this type has its main period of use slightly later than Type 1, possibly during the 2nd century AD.

Using this general dating and the features observable in the types, an estimation of the origin of the types can also be made. This discussion is seriously disadvantaged by the lack of comparative published material, and therefore the following can be only considered as a preliminary framework. It is evident that neither type discussed is of the standard Roman type (*tegula*), since features typical of these tiles, such as the cut-outs in corners, are not present in the examples. Moreover, the types display some features that are foreign in Roman tiles, such as ridges on the pan and full-length flanges in Type 1. I would suggest that a much closer comparison for Type 1 is to be found among the Hellenistic tiles, especially those from Anatolia, which presumably developed from the earlier Greek Corinthian tile type adopted in Asia Minor (Winter

1993). For example, the 3rd century BC roof tiles from Gordion feature full flanges and ridges on pan (Henrickson and Blackman 1999). This Anatolian type seems to have had a long lifetime in that area until the Late Roman period, as examples of similar tiles were found in contexts of that period in Zeugma (Önal 2013, 26). Although the paucity of published finds in Asia Minor or closer to the Nabataean area in Near East in this period makes any generalisations at best hypothetical, we can tentatively assume that this form was a generic Late Hellenistic type in the east. Type 2 is more enigmatic, since it is morphologically farther removed both from the Roman *tegula* type and the simple Anatolian Hellenistic tile type. Some elements in this type, like the more precise lines and upper pan flange shortening, are closer to the Roman *tegula* than the Hellenistic tiles, but still not similar to those in *tegulae*. Type 2 displays the ridge of the Hellenistic type; on the other hand, the line-like impressions and the specific surface treatment lead to relatively ornamental-looking tiles, a feature uncommon in the more traditionally formed Roman or Hellenistic tiles. I know of no comparative published finds from this area or elsewhere for this form, although some of the yet unpublished tiles found from Humeima's Roman fort, c. 45 km to the south of Petra, share very similar features (Dr. B. Reeves, pers. comm.). Until further examples are found, Type 2 seems therefore to be present only in this region. In that case, tiles of Ez Zantur Type 2 can perhaps be seen as a local modification of the more generic earlier Hellenistic type. This would fit well with the proposed relative chronology of the types, as well as with the development visible in other categories of material culture.

The provenance of the tiles remains an open question. Currently it is not possible to exactly determine their place of manufacture, since no scientific analyses were conducted with this material. However, it is assumed that the Nabataean fine and coarse ware pottery, used alongside some imported forms during this period, was locally produced. There are indications of such local production from c. 100 BC onwards well into the Late Roman period in Petra (Schmid 2007, 311, 325; Gerber 2014, 191). Moreover, later Byzantine roof tiles in Petra are attested as being locally or regionally produced (Holmqvist 2009, 93). This, supported by the fact that sufficient clay raw materials were at hand in the area ('Amr 1997; Rababeh 2005, 48), suggests that local production of these early tiles may have been possible. It should not be ruled out that in early stages, first-generation roof tiles were imported to Petra, but taking into account the difficulties in transporting them over longer distances – and on land – it is more likely that they were produced on site as early as possible. As all the necessary skills, infrastructure and raw materials were at place in Petra surroundings due to the production of Nabataean pottery, there is no reason to suppose extensive importing of tiles. Additionally, the fact that some of the tile fragments in Petra contain Nabataean letters, supports the notion that the tiles were locally manufactured, since at least in the case of the fragment from Upper Market, the letters were inscribed to wet clay during manufacture (see fig. 8 in Alcock *et al.* 2010). One possibility is that the skill and knowledge of manufacturing roof tiles travelled to Petra with the immigrant artisans referred to by Schmid (2008a, 377), together with Hellenistic architectural designs.

This would make it natural to use Hellenistic models for the tile forms produced; we know that ceramic roof tiles were used in Alexandria during the Late Hellenistic period (McKenzie 2007, 71), although their types have not been studied. It should be noted, however, that in all periods, roof tile manufacture, even when technically possible, must have meant a deliberate investment in the arid environment of Petra, due to the fact that a considerable amount of clay, and more critically, fuel for the kilns, was needed for their production (Bedal 2003, 57; Kanellopoulos 2001b, 21). This may have limited the use of tile to such instances where it was considered most necessary, and consequently, makes them a carefully selected component, almost a luxury. Another costly element in constructing sloping tile roofs was the necessary timber trusses. These had to be imported, as was done in the case of the cedar beams needed for the Qasr al-Bint temple (Rababeh *et al.* 2010, 71–2).

Due to our still very fragmentary knowledge of tile finds from the city, it is not yet possible to establish a more precise period of use or a lifetime for the types discussed. Also a more detailed and comprehensive typology of roof tiles in Petra is only just emerging. It should be remembered that the finds from Ez Zantur IV contain more types than the two discussed here, although in smaller amounts. Also the unrelated tile type found in the Temple of the Winged Lions indicates that the variety of tile types used in Petra during this period was greater than presented here. Closer examination of datable contexts with tile finds will in the future hopefully further clarify both the chronology and the wider typology of roof tiles in Petra. It is worth noting here that there is also a continued development of the tile types over time in Petra after the period discussed in this paper. An indication of this are the 5th century AD roof tiles found in the Petra church excavations, which do not have the characteristic narrow ridge on pan anymore (Kanellopoulos 2000a, 185, fig. 73). On the other hand, the tile material from the 5th century AD church at the Monastery of Aaron (Hamari 2008) includes a larger variety of flange forms not present in the early types of Ez Zantur, and so can be stylistically distinguished from these.

The already generally discussed impact of Roman annexation to the architecture is not evident in terms of tile forms. Although in some categories of small finds, like lamps, impact of the Roman annexation and domination has been suggested (Barrett 2008; Peacock 2013), it is not observable in the tile material. There are no specific features in the types that can be linked to the expansion of the Roman Empire to this area, and the morphological changes do not tend towards more ‘Roman’ models. It can be asked if the original idea of how to produce roof tiles was influenced by the expanding Roman Empire, where tile was a basic and very common material in construction. As already shown, the early types of tiles used in Petra have clear Hellenistic predecessors, in the same way as generally reflected in architecture. On the other hand, finds of the Roman type of roof tile (*tegulae*), which indeed have been found from some sites in the Near East, can be very closely connected with the construction and maintenance of military forts in the area, as stamped *tegulae*-type tiles are found almost exclusively on such sites or in their immediate vicinity (Arubas and Goldfus 1995; Tepper 2007;

Goldfus 2008). Moreover, even at their earliest, legionary tiles postdate the use of roof tile in Petra by at least 100 years. Even the Ez Zantur Type 2 tiles in Petra, which are tentatively dated to the post-annexation period, disregard Roman models in style and have more affinity to the decorative Hellenistic sculptural style of architecture in Petra.

Tiled roofs in Petra cityscape

The determining of the types of tiles available in Petra enables us to consider the complete roofed elements in the city and estimate their impact. The overview done in the previous section shows that most of the monumental Nabataean structures so far excavated in Petra contain an element of architecture which was covered with tiles. These elements vary from simple single-sloping roofs to complete multi-pitched roof coverings. In particular, tile is present on complete or partial roofs over structures with pitched pediments (Qasr al-Bint, Temple of the Winged Lions, Great Temple), as well as porticoes flanking public spaces (Upper Temenos, Colonnaded Street, Upper Market portico; Fig. 6.4). All of the tiled structures discussed follow Hellenistic architectural conventions. It must have been evident to architects that tile would be required for sloping roofs in freestanding buildings; this has not deterred them from using such structures. Rababeh has pointed out (2005, 202) that the builders of Petra in general had a clear understanding of constructing pitched roofs. As an example, we can consider the choice of the architect to employ a sloping roof structure over the *pronaos* of the Qasr al-Bint. This was caused by the desire to achieve an image of a Hellenistic temple – even possibly to achieve a coloured, tiled roof element in the cityscape to emphasise this image (Fig. 6.4, where the *cella* roof follows the reconstruction suggested by Zayadine *et al.* 2003). The agency behind the creation of this particular image in Petra can be presumed to have been a combination of the desires of the elite and the traditions adopted by the architects. Even the agency of the craftsmen involved in tile production itself must be presumed to have been important in terms of actual end product.

Regarding the habit of using roof tiles in construction, it can be asked whether Petra is an exceptional case, being the capital of the kingdom and the largest urban centre in the area. This question can be only partially answered, since published information on roof tile finds in other large urban centres of the Nabataean area from this period is minimal, and a comparative study is still missing. However, it is evident from survey and excavation reports dealing with research in Jordan that tile finds are associated generally only with the largest centres and major public monuments, most commonly a Byzantine church. The penetration of tiles into the countryside on the basis of this same information is negligible. Even in the sphere of public building, it seems that in the smaller centres the tendency was to select a more traditional approach, like for example at the temple at Khirbet et-Tannur (see also Peacock 2013, 188–9). In more humble private architecture, Hellenistic influence was low as well (Kolb 2007, 169–70), and virtually no roof tile fragments can be associated, even in secondary use, with

such structures, leaving rural settlements in Jordan virtually tileless. This distribution pattern of tile is in marked contrast with the core areas of the Empire, where tile finds are common also in rural areas, and reflects the overall volume of use of roof tiles in construction in this area during the Late Hellenistic and Roman periods.

Returning to the urban structure of Petra, it is evident that there has been a considerable element of tiled roofs in the city. However, this element has not dominated all of the roofscapes in Petra. As a contrast to the pitched roofs of the public buildings in Petra, the domestic architecture between the larger structures and in the surrounding slopes and ridges has probably all been flat (Kanellopoulos 2002b). Moreover, the tiled roofs in public buildings are limited to specific structures and parts of buildings discussed above. Interestingly, both categories of public structures, temple roofs and porticoes, could be chosen to be executed with flat roofs instead of pitched: such structures are for example the Soldier Tomb complex in Wadi Farasa (Schmid 2009; 2013b), and the temple at Khirbet et-Tannur (McKenzie *et al.* 2013). The former, a funerary complex constructed in the 1st century AD, had a large porticoed courtyard in front of a banquet room, executed in the same Hellenistic style as the city architecture in general. The roof of this portico, however, was a flat beam-and-plaster roof, and no roof tiles were found in the structure (Schmid 2009b). The latter structure, the Nabataean temple at Khirbet et-Tannur, is likewise a late 1st century AD building. Unlike the grand Hellenistic temples of the city centre, it was constructed along traditional Nabataean lines with flat roofs and a central sacred space (Tholbecq 2007; McKenzie *et al.* 2013). Even in the city, a flat roof was used in a monumental structure, the pavilion building in the centre of the Hellenistic pleasure garden (*paradeisos*) beside the Great Temple (Bedal 2003; Fig. 6.4, building L). These examples suggest that a choice existed whether to select a form of structure using sloping, tiled roofs or a more traditional form, with flat roofs. It also suggests that those structures associated with the private sphere of life and individuals are executed in a more traditional form, and perhaps more indicative of local identity (Schmid 2013a).

These two roof profiles, pitched and flat, created a marked contrast of roofscapes in Petra. This contrast was enhanced by the strong three-dimensional character of the Hellenistic monumental architecture, as opposed to the flat-roofed, simple-lined and more two-dimensional nature of domestic architecture (McKenzie 1990). These contrasting roofscapes gain even more importance, when we consider the possibility of viewing the roofscapes from different elevations (Zilincsar 2004). In Petra, even if roofs were not very easy to see from street-level – for example, the distance from viewer level to the lowest level of the roof is 18.4 m in Qasr al-Bint, and even 6.9 m in the portico flanking the Colonnaded Street – the city offered to the viewer varying elevations and consequently views of the roofs. This was due to the sloping terrain in the city centre, as well as the high elevations of the surrounding mountains, many of which were either settled or used as ‘high places of sacrifice’, as pilgrimage sites according to the Nabataean religious customs (Lindner 1997, 28–31; Fig. 6.1). The contrast between flat and sloping roofscapes has a long life in the city, as the

Byzantine period brings at least three church buildings into the city structure, all of which had pitched roofs covered with tiles (Fiema *et al.* 2000; Hamari 2008). There is even a possibility that the colour of tile has been of importance in creating these landscapes, since the repertoire from Ez Zantur confirms the presence of both darker red and lighter pinkish red tiles in separate type categories. These were probably used as sets on the structures, purposefully or not, giving for example the Great Temple roofs a darker red tone, and the later Small Temple a lighter one. Such selective use of types of roof tiles in ancient urban centres has been discussed by Mills, who argues that in Beirut, a 'strong element of consumer choice' in roof tile styles was possible. This choice was used to select between specific roof tile types and colours, producing roofscapes that vary from house to house, in order to make a deliberate emblematic choice based on identity (Mills 2013, 99, 113). It seems possible to suggest that something similar is also at play in Petra where, however, the contrast is created more between flat and sloping roofs, creating an alternating landscape of roofs, or in other words, a roofscape. The use of such sloping roofs was intentional, and formed a part of the grand-scale Hellenising architecture designed to impress and awe inhabitants and visitors alike. Since roof tiles were a precious material in the environment of Petra, they may even have been specifically intended to be used, carrying a message of the power of a patron who had the capacity to commission such a prestigious material to be used. All of this underlines the power of the local elite capable of such an investment and knowledgeable about how to execute it in commonly accepted and popular styles. As part of the message of Hellenistic-styled monumental architectural, tiled roofs in Petra serve in their part to separate centre from periphery, urban from rural and public from private.

Conclusions

This study has examined the use of ceramic roof tiles in Petra during the Nabataean and Roman periods. The results show that the monumental civic centre of Petra included a substantial tiled element not comprehensively recorded before. An analysis of the published roof tile finds from the city shows that tiled roofs can be associated with many of the monumental public buildings in the city, either in the form of double pitched roofs over pediments or sloping roofs over colonnades. The study also confirms the early adoption of tiles in construction, as ceramic roof tiles were used in the city from the earliest monumentalisation period in the 1st century BC onwards. The early tile forms, which have been identified on the basis of the excavated tile material from Ez Zantur IV, seem to show a development from a generically Hellenistic roof tile type (Type 1) to a more individual local adaptation (Type 2) by the 2nd century AD. We can presume with some confidence that from early on, the tiles were manufactured locally. In some cases, the tile types recognised from Ez Zantur can be associated with other specific buildings and roofs, although published examples of roof tiles from Petra remain very limited in number.

The pitched structural elements that require tile coverings are introduced to the city with the adoption of Hellenistic models of architecture, in order to achieve a more Hellenised image of a city. This takes place in a period where the Nabataean kingdom was investing massively in new urban structures in Petra. The Roman period adds its own elements to the outlook of the city and to the amount of tiled roofscapes, but does not introduce tile nor change the tile types used. As the use of roof tile is limited to the Hellenistic-influenced larger public buildings, a contrast with the rest of the architecture, especially with the bulk of flat-roofed domestic structures in the city, is created. This duality in architectural solutions produces an urban fabric where flat and pitched roofs alternate in one roofscape. As parts of the *ceramiscene* of the ancient city, the roof tiles of Petra reflect the actions of past and the agency of people over time and space in this landscape; as part of the architecture, they emphasise the vision of the city as an international Hellenistic-Roman metropolis.

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Chapter 7

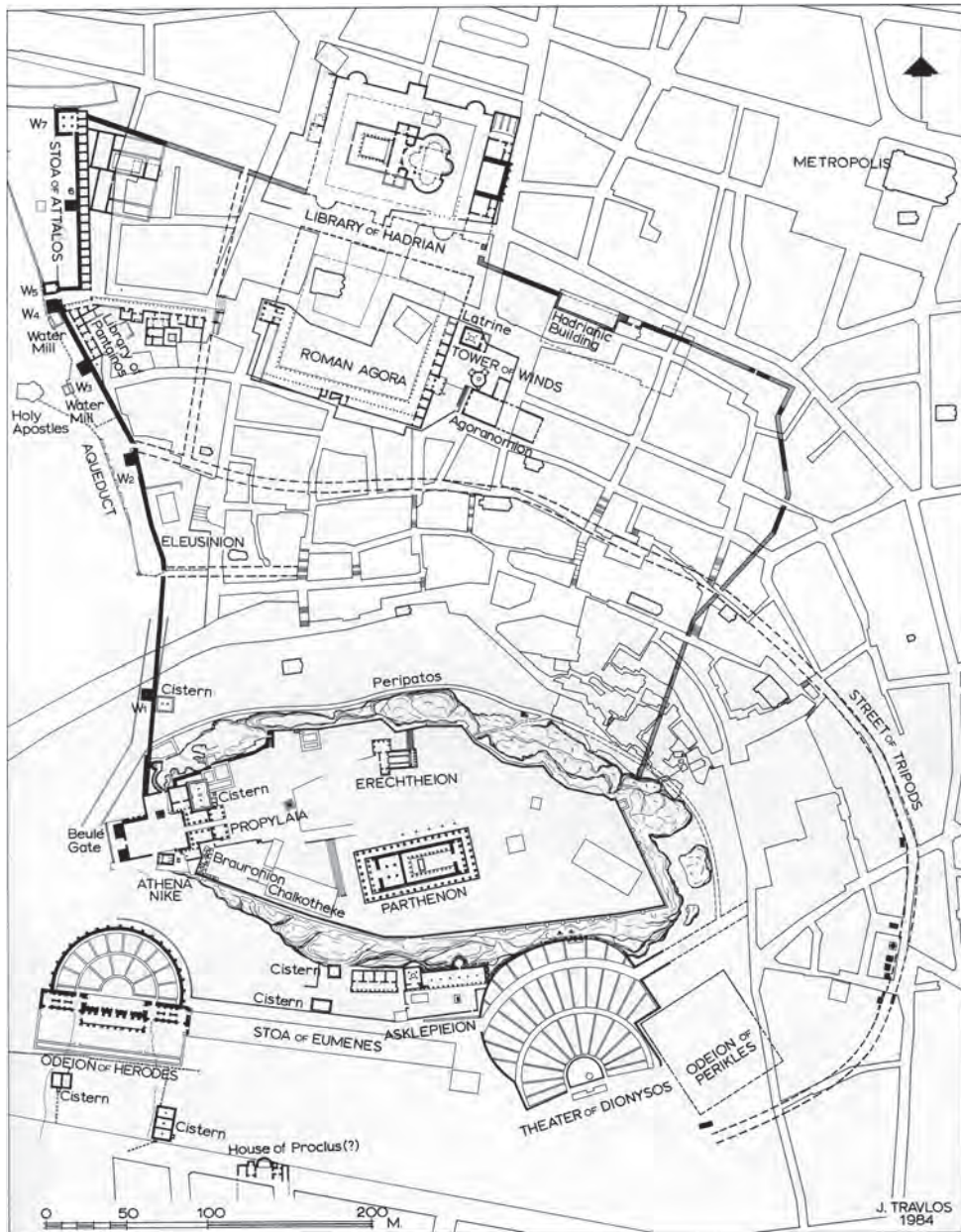
Taskscapes in a cityscape – the relocation of secular and religious activities in Late Antique Athens

Arja Karivieri

Introduction

In this short paper I will discuss how changes in the cultural, religious and legal environment of an ancient city may be reflected in the cityscape: in the archaeological remains and the material history of the city. I will explore how changes in the religious landscape of a city may be manifested, specifically in Late Antique Athens, where the activity areas of the city were redefined after AD 267 when a Gothic tribe, the Heruli, sacked the city. Athens was not the only centre the Heruli invaded but they caused destruction also in several other Greek cities. The destruction caused changes to the topography of Athens and new city wall, the so-called Post-Herulian Wall (Fig. 7.1), was built to encircle the area nearest to the Acropolis (Theodoraki 2011, 133–4). The official centre of the city was moved from the Agora in the north-west to the area immediately north of the Acropolis, and a new large gate, the Beulé gate, was built with reused material in the south-western part of the wall to create a new monumental entrance to the Acropolis. However, the old Panathenaic Way still followed its old route through the Agora, up the north slope of the Acropolis, passing by the Eleusinion towards the new gate and the Acropolis.

The Beulé gate acted as the main entrance to the temples of the Acropolis during Late Antiquity and the main entrance for religious processions during the Panathenaic festivals organised for the honour of goddess Athena until the early 5th century AD. The continuation of the Panathenaia until the 5th century AD is attested by an honorific inscription dedicated to the sophist Plutarch. Plutarch paid three times for the sacred ship of Athena that was brought in the Panathenaic procession to the temple (IG II² 3818; *Agora* XXIV, 23–4, 63–4; Sironen 1994, 46–8; Burkhardt 2010, 128). Thus the continuation of the cult of Athena until the 5th century is without doubt. At the same time, we know that Christianity had become the official religion of the



The Acropolis and the Post-Herulian Wall

Fig. 7.1: Post-Herulian Wall and the Acropolis (plan John Travlos 1984, courtesy of the American School of Classical Studies at Athens, Agora Excavations).

Roman Empire in the 4th century and pagan cult rituals were increasingly restricted and outlawed through imperial edicts. Hence, the simultaneous coexistence of pagans and Christians in Athens deserves special attention, especially the question concerning the locations where the pagans could still perform the rituals required by each and every cult.

A large part of the city, including the Agora, that had been previously defined by the old Themistoclean circuit of the Classical period and the main gates of Athens, was left outside the borders of the new Post-Herulian wall and outside the new city centre (Fig. 7.2; Theocharaki 2011). The main activities and the city administration seem to have been moved from the Agora to the area delineated by the new city walls, as the area of the Agora with several administrative buildings and temples seems to have been plundered after the Herulian sacking and many buildings of the Agora were demolished and used as building material for the Post-Herulian Wall in the late 3rd century (Burkhardt 2010, 126–8). For example, the old archives of the city were kept in



Fig. 7.2: General plan of Athens showing various city walls. The 'House of Proclus' marked in the lower part of the plan, south of the Asklepieion, and the private houses on the north slope of the Acropolis marked with letters A–D (plan John Travlos 1982, courtesy of the American School of Classical Studies at Athens, Agora Excavations).

the Metroön in the Agora until AD 267, but after the destruction of the Bouleuterion, the central archives of the province of Achaëa may have been relocated to the Library of Hadrian inside the Post-Herulian circuit in the 4th century (Castrén 1994, 3–4).

A central aspect in this paper is the change in secular and religious taskscapes, *i.e.* where the different activities, secular and religious, took place and when the movement of the activity to a new location took place, as well as the reasons for the movements. The archaeological evidence from various excavations in the centre of Athens has shown that several previous activity centres were abandoned after the Herulian raid of AD 267. New *focii* for both secular activities and religious rituals and activities were created in the centre of Athens from AD 267 to the 6th century AD, when old temples were abandoned, destroyed, and later, in a third phase, in the 5th or 6th century, adapted to Christian use through changes in their architectural structure. There is evidence that religious activities connected with the old cults were moved to private residences, or, to remote places in the countryside when the visits to the mountains and caves of Attica increased considerably (Caseau 2004). What can we say about the changes in these taskscapes? How did the new city wall reflect and impact on the changes in activity zones in the city area?

The period, from the late 3rd century to the 6th century AD, is a time of important changes that provide the background to these transformations: the changes in the religious interests of the Athenian people, reflected in the popularity of Neoplatonism, theurgy and Oriental cults on the one hand, and the new official role of Christianity, on the other hand, that would radically alter the topography of Late Roman cities in general from the 4th century onwards. These changes in the religious scene of the city of Athens are reflected in the archaeological evidence, in architectural structures and in the nature and iconography of sculpture and small finds. Thus, the distribution of standing structures, religious artefacts, sculpture, and ceramic objects, as well as the inscriptions connected with various cults provide a possibility to define religious zones as well as their diachronic changes in Athens.

Pagan Athens

Athens was a stronghold of pagan religions until the 5th century when the tetraconch, probably the first Christian church in the centre of city, was built in the centre of the Library of Hadrian. Even after this, until the early 6th century, there is solid evidence for the activities connected with the pagan cults in Athens and Attica. In Late Antiquity many Athenians participated in the rituals of several ancient cults and could be members of several religious associations. Thus the city could be considered a palimpsest of overlapping religious taskscapes.

Athens was famous for its philosophical schools and in the late 4th century, students of philosophy came to the newly founded Neoplatonic school of Athens, a centre of non-Christian thinking, from all over the Roman Empire. The teachers at the Neoplatonic School of Athens practiced theurgical rituals, *i.e.* to create a

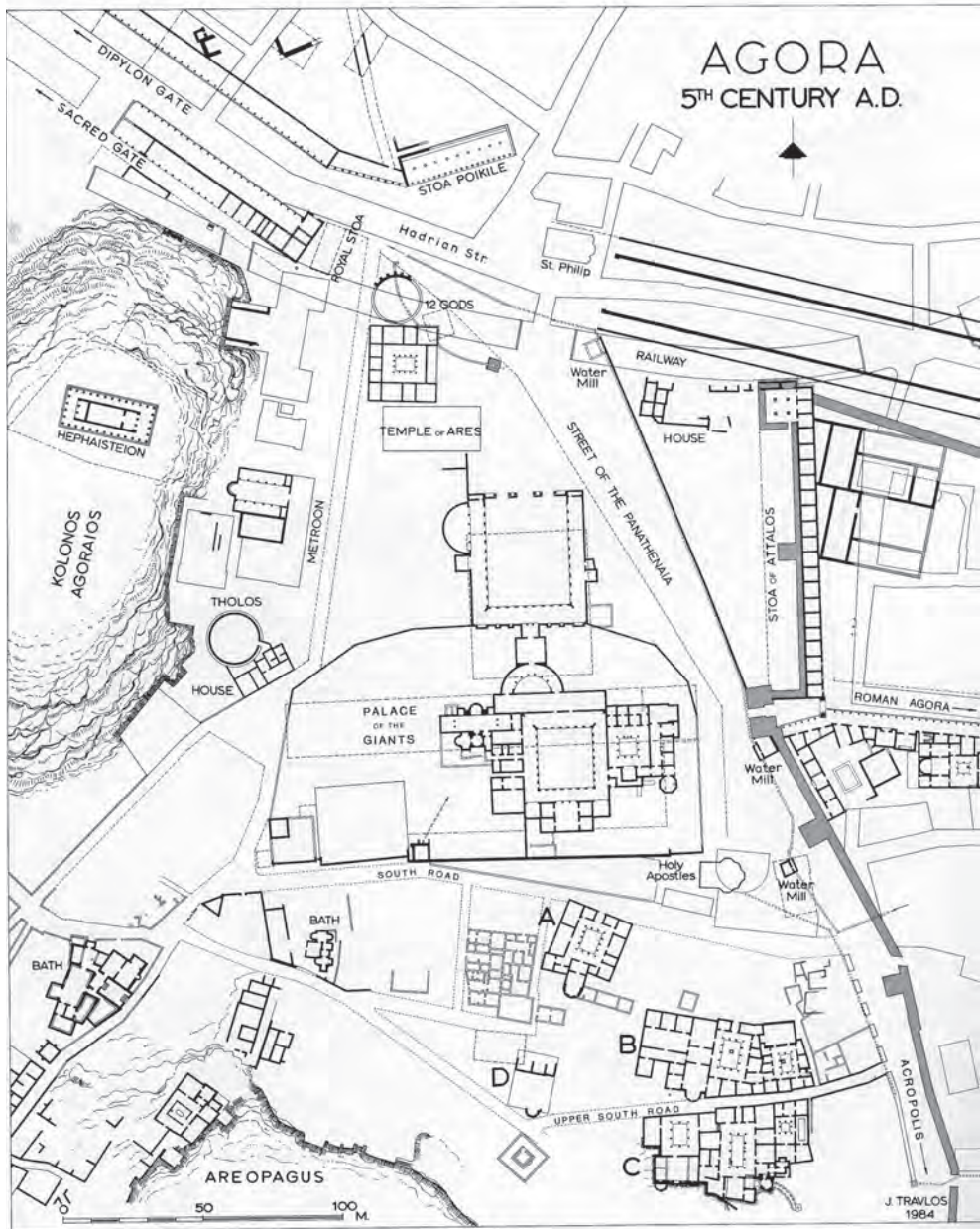
contact between humans and gods through ritual acts. *Theurgia* was based in the Chaldeic oracles and Oriental mysticism. According to Iamblichus, the theurgic relation could only be created with the correct performance of secret acts and with the power of the secret symbols that only gods can perceive (Iamblichus, *de myst.* II.ii). The intellectual mysticism and contemplation of Plotinus was in the late 4th century AD replaced by ritual mysticism, theurgy, magic and cult rituals. Proclus, the leader of the Neoplatonic school in Athens in the mid-5th century, believed that individuals could attain theurgic union, the reunion with the divine and reach the One through the secret symbols that exist in some stones, plants and animals (cf. Karivieri 2010; 2015, 182–3). Thus, the contact with the gods could be created with the help of symbols, divine names, theurgic powers and secret rituals that could be performed in private houses and in the countryside far away from the crowded areas of the city.

Some pagan sanctuaries in Athens, however, were possibly abandoned after the Herulian destruction in AD 267, such as the temple of Ares in the centre of the Agora (Fig. 7.3; *Agora* XXIV, 75). Partial destruction and abandonment of the temple of Ares may be suggested as parts of the ceiling structure from the temple were reused in the construction of the Post-Herulian wall;¹ the area of the previous temple in the Agora changed its function and in the 5th century the area became part of a large building complex, the Palace of the Giants, perhaps an official residence. However, it is not possible to discern the exact function of the temple structure after AD 267 as only the temple foundations were preserved between the western wall of the North Court of the large new building and the southern wall of the new so-called Square building to the north (*Agora* XXIV, 54, 66, 97 and n. 9, 109). Another important change concerns the disappearance of the Altar of the Twelve Gods that had been the central milestone in ancient Athens and a popular place of asylum (Crosby 1949). The blocks of the altar were covered by a destruction layer including pottery sherds of the 2nd and 3rd centuries AD and the foundation of the north-eastern corner of the Square building was laid over the *peribolos* of the altar in the early 5th century (Crosby 1949, 99). At least this part of the pagan cityscape disappeared.

Pagans in Christian Athens

When the Neoplatonic School was still in function (and before it was closed by Emperor Justinian in AD 529), pagan cults had already been forbidden by imperial sanctions. Christianity had become the official religion of the Roman Empire and the Emperor. One of the most important edicts for this study, from AD 408 and included in the *Theodosian Code* (16.10.19.1–2), states:

‘If any images stand even now in the temples and shrines, and if they have received, or do now receive, the worship of pagans anywhere, they shall be torn from their foundation, since We recognize that this regulation has been very often decreed by repeated sanctions. The buildings themselves which are situated in cities or towns or outside the towns shall be



The Athenian Agora, 5th century after Christ

Fig. 7.3: Agora in the 5th century AD (plan John Travlos 1984, courtesy of the American School of Classical Studies at Athens, Agora Excavations).

vindicated to public use. Altars shall be destroyed in all places, and all temples situated on Our landholdings shall be transferred to suitable uses. The proprietors shall be compelled to destroy them.'

When pagan rituals became illegal they could still, however, be performed in private houses and secluded places, such as caves in the countryside, far away from the eyes of Christian city officials. Even though the sanctions of the Theodosian Code did not lead to a direct destruction of the Athenian sanctuaries, they led to the removal of the cult statues from the temples, and either to the destruction or removal of the statues to secular space or private houses, as the evidence from the Omega house (House C) on the north slope of the Acropolis has shown. Here, several sculptures representing deities were found, among others a statue of Athena and a relief representing Pan and the Nymphs (*Agora XXIV*, 37–47). Another example is the removal of the statue of Athena from the Acropolis probably in the mid-5th century, to a private collection in Constantinople, which is attested by literary sources (Mango *et al.* 1992).

The main temples on the Athenian Acropolis continued to function until at least the early 5th century. An important mystery cult, the Eleusinian mysteries (the cult of Demeter and Persephone), was popular in Athens. The sanctuary dedicated to the Eleusinian gods on the north slope of the Acropolis seems to have continued in use after AD 267 as it was still protected by the new Post-Herulian wall and located in the new city centre, near two of the city-wall gates (*Agora XXIV*, 7, 129; Burkhardt 2010, 126). It may thus be suggested that the Eleusinion was still in function in the 4th century.

The Oriental cults that were especially popular in the Roman and Late Antique Athens include the cult of Isis and Sarapis. The cult of Isis continued in Athens until the 5th century, which is attested by Marinus's biography of Proclus, citing Proclus's interest in the cult of Isis, displayed in his hymn to the goddess (Marinus, *Vita Procli* 19; *cf.* Karivieri 2014). Furthermore, a bust of Isis was found in a 5th–6th century context in the 'House of Proclus', a private house on the south slope of the Acropolis, not far from the 2nd century temple of Isis, located adjacent the temple of Asklepios on the south slope (Walker 1979; Karivieri 1994, 131–2). In the same private house statues of Asklepios and Aphrodite were found in a 5th–6th century context (Brouskari 2004, 127, 133).

The 'House of Proclus' included a private sanctuary where a relief of Kybele and a relief representing chthonic gods were placed above a Classical funerary base reused as an altar (Karivieri 1994; Brouskari 2004). The mystery cult of the Phrygian goddess Kybele and Attis had become especially popular in Late Antiquity. Archaeological evidence from southern Greece includes both large oil lamps used in religious festivals and several reliefs of Kybele from private houses in Athens, some of them from private shrines, such as the example from the House of Proclus, another one found in Kekropos 7–9 in Plaka and a third one in a large house in the National Garden of Athens, near the corner of Vasilissis Sofias and Erodou Attikou Streets east of the

Acropolis, showing the popularity of private shrines in the 4th and 5th centuries (Karivieri 1994, 137–8 and notes 155–7 with further bibliography). Two reliefs of Kybele were found in the house of Kekropos Street 7–9 in the destruction layer of the late 4th century AD, and the large villa in the National Garden had a small shrine decorated with three statues, two of Kybele and one of Hygieia, as well as two reliefs, representing Asklepios and Kybele, found in the destruction layer of late 4th to early 5th century that may possibly be connected to Alaric's invasion of Athens in AD 396.

To better understand the local taskscapes, we also have to understand why the use of sacred caves in Attica intensifies during the 4th and 5th centuries. The use of caves seems to be connected with the cult of Pan and the Nymphs, the usual offering being an oil lamp or coins. Thousands of terracotta lamps have been found in the caves of Attica around Athens, suggesting that the rituals in caves had a connection to light, and, perhaps, to mystery cults, or, theurgic rituals mentioned above. The caves as closed and secluded places could be part of the privatisation of pagan ritual practices in secret.

In a parallel manner, the owners of the 'House of Proclus' on the southern slope of the Acropolis, had conducted a private ritual in the house as late as in the late 5th century, when they stabbed a piglet with a large knife and buried the animal with seven mugs, a jug, a bowl and an oil-lamp representing Eros (Karivieri 1994 with figs). Eros, together with Aphrodite, was still popular in Late Antiquity, and the leader of the Neoplatonic school, Proclus, wrote a hymn to Aphrodite. We may ask what this offering and the sacrificial victim, an animal sacrifice in a private house, signify in this context, as animal sacrifices had already been forbidden for over 100 years, since the mid-4th century. The literary sources do not provide an answer. The nature of the ritual is possibly connected to the new reality. The movement of religious activities from public to private space included a change of ritual – the relocation of the ritual context may have changed religious interpretation, the ritual act and its outcome. Can we see here a new 'hybridisation' of rituals when deities were associated with each other, a new 'syncretic' ritual within marginalised pagan practices? The pagan rituals may have been performed in private houses in the city area, in rural temples and sacred places in the countryside, as well as in sacred caves far away from the control of Christian authorities.

Conclusions

As Tim Ingold pointed out (Ingold 1993, 160), we adjust our actions in response to each other's presence in shared contexts of practical activity. Ingold analysed six components in Pieter Bruegel's painting *The Harvesters*, i.e., the hills and valley, the paths and tracks, the tree, the corn, the church, and the people (Ingold 1993, 165–71). Two components in his analysis have a special relevance to the present study: the church and the people. As Ingold emphasises, a preservation of the church in its existing form 'requires a regular input of effort in maintenance and repair', and when

this input lapses, the church will soon cease to be a building and become a ruin (Ingold 1993, 170). We may compare the destiny and history of the temples and sanctuaries in Late Antique Athens to the church in *The Harvesters*: when the human input failed in the 5th century AD after the imperial sanctions against pagan cults, the Athenian temples ceased to function as sanctuaries and were either robbed, demolished or changed into Christian churches, adapted to the reality of the new Christian society where majority of the population and imperial officials had become Christians.

A similar, gradual development may be followed in Rome, where some of the pagan temples survived until the 5th, 6th, and even to the 7th century before the structural change (Karivieri 2002). As in Athens, in Rome the most important temples of the ancient city were transformed in the last phase. In Athens, the temples at the Acropolis and the Hephaisteion at the Kolonos Agoraios seem to have been changed into churches in the 6th century AD, when in Rome the Pantheon became a church in the 7th century, far later than the pagan rituals became forbidden and temples were closed for pagan ritual activities.

In Antioch, Libanius wrote a speech in the late 4th century to Emperor Theodosius as a defence of the temples (*Oration* 30; Van Nuffelen 2014). Van Nuffelen (2014) sees the oration also as a reaction against the threat of confiscation of estates on the grounds that sacrifice happened there. Libanius laments that peasants have been robbed of their possessions and landowners have lost their land due to the accusations that have no legal grounds (*Oration* 30.10–12, 54–5; Van Nuffelen 2014, 301–2). Another central aspect of Libanius's speech emphasises that when peasants shared a common meal near a temple, Christians may have interpreted a shared meal as a sacrifice (*Oration* 30.17–18; Van Nuffelen 2014, 304). Libanius argues at the same time for the importance of the traditional cults for the public welfare of the empire (Van Nuffelen 2014, 311–13), and shows how important for him and other representatives of the pagan elite was the preservation of old customs and the traditional structure of the Roman society, including the continued existence of public temples.

In this article I aimed at discussing the change of activity zones in Late Antiquity that may be connected to the destruction caused by invasions or natural catastrophes, causing the reorganisation of activity zones in the cities, as well as a relocation of sanctuaries and sacred areas. In Late Antique Athens, these changes are also connected to the introduction of new Oriental cults that had become popular in the city, and to the gradual abandonment of old cults and religious traditions when Christianity became an official religion in the 4th century and gradually took over the role as the major religion in the Empire (see also Baldini 2014).

In Athens, the Christian churches were first built in the outskirts of the city. The Acropolis, the most visible monument of Greek culture and ancient religions, probably did not become a Christian sanctuary before the mid-6th century (cf. Kaldellis 2009, chapter 1, preferring a 5th century date). The Parthenon and the Erekhtheion at the Acropolis, the Hephaisteion at the Kolonos Agoraios, and the Asklepieion on the southern slope of the Acropolis, were all transformed in the service of the Christian

faith, and later on the areas of the new churches in Athens were also used as burial places showing the fundamental change of activity zones connected with sacred areas in the Early Byzantine period (Baldini 2014). The burial places of the city were located outside the Themistoclean circuit and along the main roads outside the city gates until Late Antiquity, but the situation changed dramatically when the Christian churches were built in the centre of city from the 5th century AD onwards: numerous Christian funerary inscriptions have been found in the centre of Athens from the graveyards connected to the Early Byzantine churches.

Note

1. Agora XXIV, 75 n. 131. Homer Thompson suggested, however, that the temple was repaired after AD 267 and that it was still standing when the Palace of the Giants was built (p. 109).

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Chapter 8

Materialised taskscape? Mesolithic lithic procurement in Southern Norway

Astrid J. Nyland

Introduction

In this article I explore the task of lithic procurement during the Mesolithic in southern Norway. Procurement could, in addition to being seen as a pragmatic task, be perceived as a means of expressing relationships to a lived-in land, demonstrating social ties between people of hunter-gatherer-fisher based communities, and used to illustrate broader links to an ancestral past. Hence, lithic procurement is understood as a process of situated actions that express the role and significance of socially constructed taskscape. I argue that chronological developments and differentiation in the uses of quarry sites and other rock sources reflect a process of regional differentiation that took place in southern Norway during the Mesolithic. These findings are also supported by the distribution and uses of other archaeological material. The results presented in this article are based on the results developed in my recently defended PhD, undertaking a comparative chronological and supraregional study of practices involved in direct procurement of lithic raw material in the Stone Age of southern Norway, as well as knowledge of preferences displayed by lithics used at settlement sites (*cf.* Nyland 2016).

Applying the concept of *taskscape* in this context builds on Tim Ingold's (1993, 158) definition of the way in which space is socially constructed through the spatial, temporal and ongoing dimensions of human practices. A taskscape is the web of practices and places spun around the lives of people. The significance of the paths and tangles in this web are time, context, and culturally specific. Hence, the theoretical premise that underpins the interpretations in this article is that both practices and behaviours are simultaneously culturally and historically, situated, as shared expressions of social relationships and cultural affinity. This build on ideas from practice theories and the methodology of *chaîne opératoire* analysis (*cf.* Mauss 1979 [1950]; Leroi-Gourhan 1993 [1964]; Bourdieu 1977; Schlanger 1990). Accordingly, shared

practices are interpreted as expressions of social relations and contact between people. Based on these principles, I argue that differences identified both in the organisation of rock assemblages and the practical implementation of the task of rock procurement reflects different taskscapes from outcrops, to moraines to beaches. Using the *taskscape* in this manner is a way of combining ideas of identifiable spatially confined places, of raw material procurement, and also cultural concepts influencing day-to-day practice. This concept has been similarly applied to investigations of landscapes of production, consumption and discarding in the Mediterranean, called ‘lithoscenes’ and ‘ceramiscenes’ (cf. Mills and Rajala 2011, 3).

In this article, I hypothesise that variation in practice and taskscapes can identify the process of regionalisation in eastern and western Norway during the Mesolithic. Whether interpreting where a particular rock type was quarried, why a specific place was quarried or how rock was collected from moraines, all these practices contributed to strengthening social relations between hunter-gatherer-fisher groups living within the two regions. They can also reflect how a society anchored their sense of regional belonging. Obviously, some regional variations in lithic procurement were preconditioned and dependent on geological availability as I will address in the next section. However, the chronology of changes in lithic procurement across regions suggests that the intensity of quarrying, the scale and character of distribution, and the actual use of particular rock types were not only geologically, but culturally determined too. To illustrate the complexities of these interrelated relationships, I will focus on sites utilised for the acquisition of rock for adze production in particular. However, I will first outline some essential terms and assumptions.

Natural preconditions, Stone Age quarries and identification of procurement practices

Norway is a relatively small country, but the geology is varied and has been shaped by both geological events, such as the Caledonian orogeny, which particularly affected the western part of southern Norway, and geomorphological processes like the glaciers creation of large moraines along the southern coast and south-eastern Norway (cf. Ramberg *et al.* 2007; Fossen 2008; Fig. 8.1). These processes have naturally pre-conditioned the availability of specific rock types. For example, hornfels is a common rock type for Mesolithic adze production in south-eastern Norway. Hornfels was formed during the geological creation of the *Oslo rift* or *graben* (Ramberg *et al.* 2007, 292), whereas mylonites, used for blade and flake tools in parts of western Norway, were formed as thrust nappes, or parts of the ocean floor, were pushed across the Scandinavian Peninsula during the Caledonian orogeny (Ramberg *et al.* 2007, 200; Fossen 2008, 137). Greenstone is found on the western coast and central Norway, whilst diabase dykes or sills are more commonly occurring across the country.

It is important to note that even if there is no autochthonous flint in Norwegian bedrock, it is however the most common type of rock found at Stone Age settlement

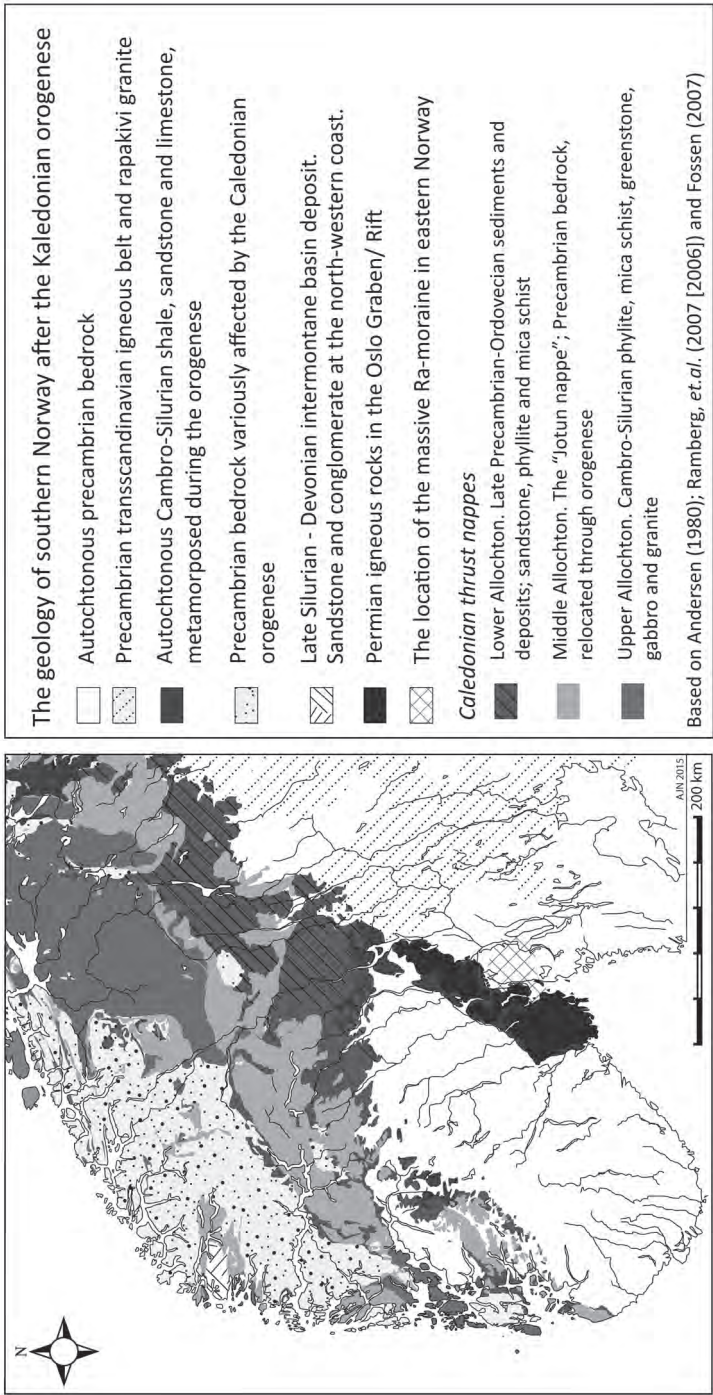


Fig. 8.1: Outline of the varied geology in southern Norway, formed during different geological events and geomorphological processes (Illustration: A. J. Nyland).

sites in southern Norway, and can still be collected as beach nodules along the Norwegian coast. The general understanding of this phenomenon is that flint nodules, frozen into the ice in flint rich areas of southern Sweden, Denmark or northern Germany, were transported with drifting icebergs with the Gulf Stream to the Norwegian shores, at the end of the last Ice Age. However, even if flint dominated at many sites during the Stone Age, other rock types were commonly exploited too. In the Mesolithic, quartzites, mylonites, jasper, and chert were used for blade and flake tools, while greenstone hornfels and diabases in particular were used in axe and adze production. All of these rock types may be found as cobbles or chunks in moraines, but some of them have also been quarried from accessible deposits in outcrops and rock faces. Nearly 50 quarries, or otherwise exploited rock deposits, with traces of activity dated to the Stone, Bronze and Early Iron Ages are known in Norway. Their size varies, as do the intensity of their exploitation, the length of their use, as well as their geographical location; they are situated at the coast, at the fjords, in the mountainous areas and in other inland regions (Nyland 2016). When using the term Stone Age *quarry* or *extraction site*, I refer to an outcrop or a rock deposit which has recognizable traces of intentional exploitation, for the purpose of procuring lithic raw material to produce various types of tools using Stone Age technology. By recognisable traces I mean debitage from the initial reduction of blocks to the recognisable rough-outs found at the source, or in the immediate vicinity of it.

The organisation and physical lithic procurement practice involves aspects of choice and preference as many human actions do, and is therefore influenced by cultural traditions, and socialised practice learnt through being part of a group (e.g. Mauss 1979 [1950]; Bourdieu 1977). Such knowledge or skills can determine actions, consciously or unconsciously, applied, as part of socio-political strategies. Hence, any trace of human action can be perceived as culturally influenced and reflections of people's cognitive concepts or mental templates (cf. Lemonnier 1993, 3). Within the methodology of *chaîne opératoire* analysis, this is reflected in terms such as *production concept* and *cultural* or *cognitive templates* to explain the existence of culturally specific technologies involving socially or culturally shared choices (Leroi-Gourhan 1993 [1964], 230; Pelegrin 1990, 118; Sørensen 2012, 34). I am building on the terminological framework and methodical approach of *chaîne opératoire* in the process to archaeologically identify variation in procurement practices in the designated geographies. Traditionally, a *chaîne opératoire* analysis involves studies and the identification of sequences of actions, of gestures and choices made by practitioners of the technology they used. In a quarry material it is rare to be able to find evidence to identify such individual gestures. However, lithic procurement involves a range of choices that reflect a specific organisation of the task too. By comparing evidence found at the extraction sites it is possible to evaluate prevailing practices and to compare this with the material found at other types of sites in the extraction sites vicinity. We can deduce, when looking at assemblages as the sum of the work of numerous individual practitioners, existing cultural templates that are manifest in

the way they demonstrate the varied use of the land and rock. Hence investigations to explore specific details, such as tracing where the quarried (or collected) material ended up, and the way certain outcrops or moraines were used and reused have enabled me to identify regional variations in practice.

Other researchers have differentiated between procurement practices; for example Lewis Binford (1979, 259) did not view lithic procurement as being the sole reason for a journey. He believed that the practice was an *embedded procurement practice*; that is to say procurement was, to his mind, a task performed as a bonus, undertaken if opportunity called when already moving through a landscape. However, whilst Binford's theories stress pragmatic adaptation based on causal strategies or preferences in the task of procuring rock, linked to mobilisation patterns and the optimisation of cost-input and energy-output, I view tasks as activities undertaken in accordance with current social and cultural norms, social or cultural templates, traditions or habits (cf. Mauss 1979 [1950]; Bourdieu 1977; 1990). Hence, I perceive the task of procuring rock as both a pragmatic task, part of an everyday routine, embedded or specialised, but at the same time I also see it as a task undertaken in accordance to social or cultural norms or traditions, perhaps even conforming to symbolic regulations or rules (cf. Gould and Saggers 1985; Taçon 1991).

In the following study, I will examine how identified variations in rock procurement practice can be perceived as materialised Mesolithic taskscape that reflect social relationships to land and within groups. I present findings based on the variations in procurement practice that have been deduced through the identification of level of scale and duration of exploitation at quarry sites, the variations in the organisation of procurement process, and any local or regional preferences in lithic material at settlement sites. This work is supported by evidence based on the dispersal patterns of the lithic rock types in question and the raw material preferences also deduced from the lithic material found at contemporary settlement sites.

Mesolithic quarries in southern Norway

In southern Norway, Mesolithic activity can be identified at 15 of nearly 30 quarry sites, 12 of which are relatively secure (Fig. 8.2; Table 8.1).

Knowing when and for how long an extraction site was in use, as well as the scale of exploitation, can give an index of the intensity of quarrying at each site. As Table 8.1 clearly displays, there are differences in the sites' intensity index. However, the index does not indicate the variety in intensity in site activity. Such knowledge is mostly deduced by establishing the extent of use of specific rock types found at settlement sites. Initial preparations of preforms and blanks were undertaken at all quarry sites; however, some of the sites have detached specialised workshop sites recorded as well (Nyland 2016; Olsen 1981).

Seven of the quarry sites provided diabase and greenstone for adze or axe production. Two of these seven sites are of particular interest and will be presented

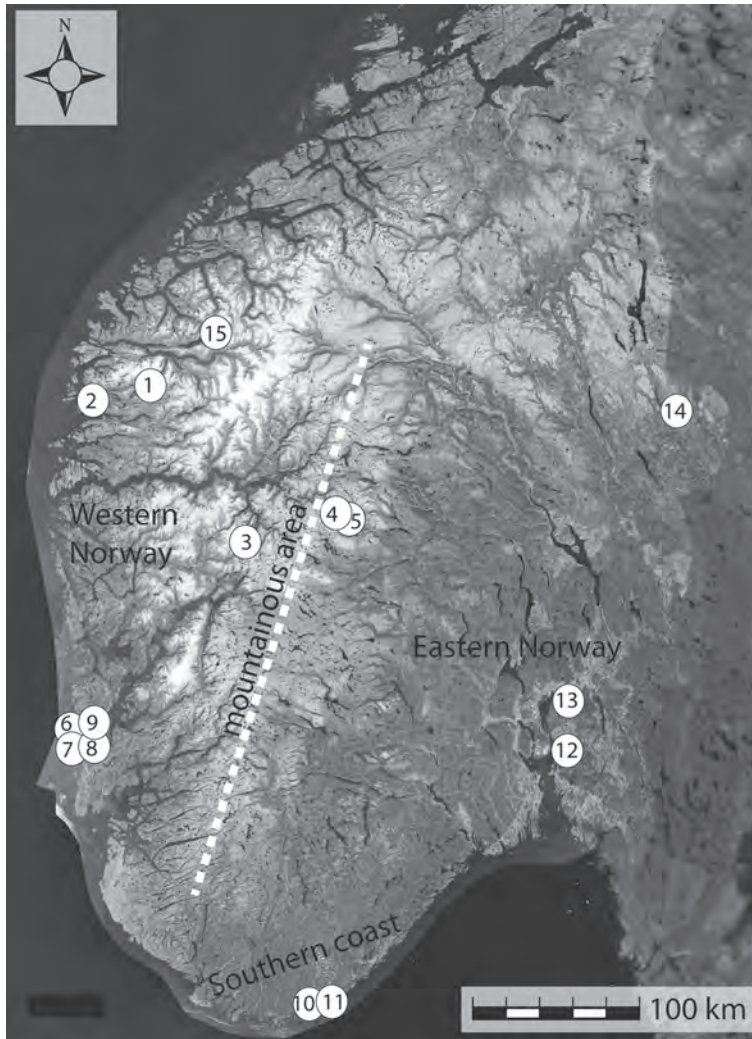


Fig. 8.2: Satellite image showing southern Norway. Western Norway is dominated by an outer archipelago, featuring deep fjords with steep mountain sides, whereas eastern Norway has a less dramatic landscape, and the great Ra-moraine follows the south-eastern coast to the Swedish border. The mountain plateaus of Hardangervidda, Skarvheimen and Dovre separate the two regions. The circled numbers marks the extraction sites discussed in this article. The numbers correspond with the list in Table 8.1 (illustration: A. J. Nyland).

and discussed in more detail. These are Stakalleneset (2) and Hespriholmen (6), both of which were heavily exploited and continually reused in more than 5000 years. These sites have been extensively archaeologically investigated, and the rock dispersed in their surrounding regions has been provenience determined as well (Alsaker 1982; Olsen and Alsaker 1984; Olsen 1981).

Table 8.1: Extraction sites dated to the Mesolithic in southern Norway, exploited with various intensity and extent

No.	Site	Rock type	Location	M ³ of quarry waste at sites	Mesolithic periods of use	Extent of time period (years)	Index Dm ³ (litre)/years	Scale of activity	Admin. defined size (m ²) of site protected by law
1	Skilbreivatnet*	Quartzite	Mountain	>0.1	LM?	500	0.2	Small	261
2	Stakalleneset	Diabase	Coast	310	MM-LM	5700	54.4	Large	11,004
3	Krøklevatnet 2	Quartzite	Mountain	5	LM	2800	1.8	Moderate	4421
4	Kjølskarvet	Quartzite	Mountain	100	MM-LM	8000	12.5	Large	23,349
5	Halsane	Quartzite	Mountain	10	MM-LM	7000	1.4	Moderate	3756
6	Hespriholmen	Green-stone	Coast	320	MM-LM	5700	56.1	Large	6749
7	Stegahaugen	Green-stone	Coast	6	MM-LM	1700	3.5	Moderate	20,066
8	Nautøya	Jasper	Coast	2	LM	1200	1.7	Moderate	427
9	Skjervika	Jasper	Coast	3	LM	1200	2.5	Moderate	50
10	Tømmervig odden*	Diabase	Coast	>0.5	MM?	500	1.0	Small	3
11	Rivenes	Diabase	Coast	2.5	MM	500	5.0	Moderate	442
12	R114 Knapstad	Diabase	Coast	0.5	LM	500	1.0	Small	375
13	Ekeberg	Diabase	Coast	6	MM	1000	6.0	Moderate	245
14	Flendalen	Jasper	Inland	40	MM-M	4700	8.5	Large	4608
15	Ytrehorne*	Chalsedony	Fjord	1	LM?	500	0.2	small	261

The three sites marked with* are not securely confirmed.

Stakalleneset (2) is located in the northern part of the western coast of Norway, in the county of Sogn og Fjordane (Fig. 8.3). Its location is somewhat withdrawn from the outer coast and it is situated on a headland in a landscape dominated by small fjords and islands. A 700 m long and 1–2 m wide vertical diabase dyke runs across the headland. The dyke has been heavily exploited leaving deep hollows where the quarrying has been most intense. Large waste piles and workshop sites surround several quarried parts of the dyke. It was used from the beginning of the Middle Mesolithic and well into the Middle Neolithic (Olsen 1981; 2009; 2012). A more intensive phase of activity in the Late Mesolithic was determined by radiocarbon dating charcoal from the top and bottom layers of waste piles (Olsen 1981, 112). In close proximity

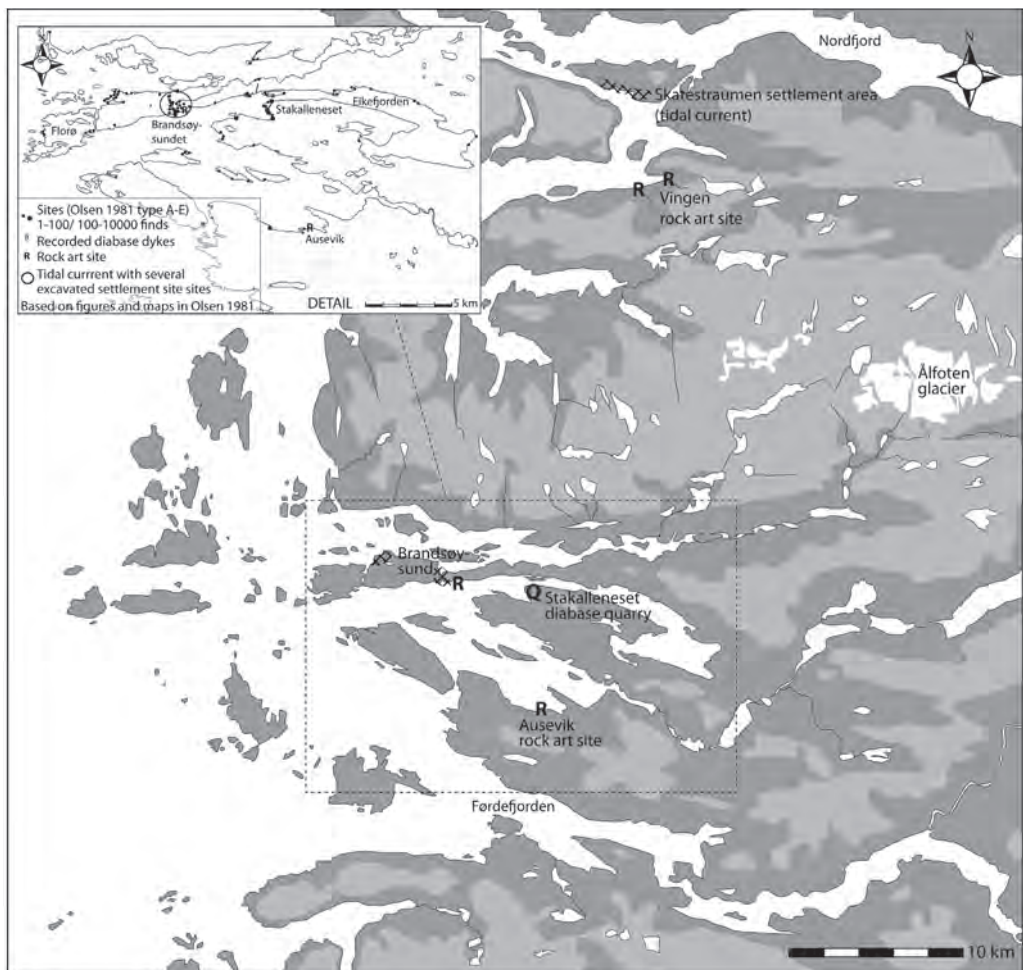


Fig. 8.3: Stakalleneset are located in the vicinity of Late Mesolithic rock art, settlement and workshop sites. Settlements, quarry and rock art sites are in the coastal region. (illustration: A. J. Nyland).

of the headland, there are detached workshop sites along the shores where initial processing of diabase has occurred, whereas the finishing stages of production, like grinding, was undertaken at the settlement sites. In this region settlements are often located close to tidal current or in sheltered bays along the coast. The inner parts of the fjords are less settled. There are also three so-called hunters rock art sites in this district, all three dated to the Late Mesolithic (Olsen 1981; Nyland 2002; Lødøen 2003; 2013; 2014). Vingen, contain up to 2000 figures, Ausevik holds a few hundred figures, and the small rock art site of Brandsøy display six figures (Fig. 8.3 and 8.4). The small site of Brandsøy is located next to a tidal current where there are several settlement sites, excavated and dated to the Late Mesolithic as well. The characteristic speckled diabase from Stakalleneset was widely distributed and used to make adzes.

Hespriholmen (6) is located on the southern part of the western coast of Norway, Hordaland (Fig. 8.4). The quarry is on a small islet, approximately 300 m long and 50 m wide, at its highest point in the area 22.5 m a.s.l. and located in the outer coastal zone of the region. The landscape is archipelagic and the largest habitable island in the vicinity is Bømlo, approximately 3 km to the east of Hespriholmen. The greenstone deposit on the islet was exploited in several places from the start of the Middle Mesolithic and probably as long as Stakalleneset, well into the Middle Neolithic (Alsaker 1987; Nyland 2016). The quarrying is today visible as deep hollows and the most prominent mines are on the western side and top of the islet. Quarry waste has been found atop the eastern side of the island, as well as on the seafloor below the quarried hollows. As at Stakalleneset, in the surrounding area there are both settlement sites and specialised workshop sites for adze production. Contrary to the situation further north, the rock art sites are located further inland at the fjord, and the sites are small, but similar to the Brandsøy site. The greenstone originating from Hespriholmen, and perhaps also from Stegahaugen (7), another Mesolithic greenstone quarry located on the island Bømlo, was widely distributed and used to make adzes.

Stakalleneset, Hespriholmen and Stegahaugen are the only known adze-quarries from western Norway. However, other unknown sources have also been exploited. Evidence of this is displayed by the lithic assemblages found at settlements along the western coast. For example, a relatively extensively used source, colloquially named 'the fourth quarry' (Olsen 1981, 161; Bergsvik 2006, 120–3), is based on dispersal patterns located somewhere in the region north of Stakalleneset, suggested by identified raw materials in found in locally found adzes. Other sources may also have been used more opportunistically.

In eastern and southern coastal Norway, there are only a few small-scale adze and axe quarries, at Ekeberg (13), at R114 Knapstad (12), at Rivenes (11) and possibly Tømmervigodden (10) (Fig. 8.2). None of these displays extensive reuse through time. Instead, moraine materials were extensively exploited, particularly in the Late Mesolithic, demonstrated by the variety of types of rock used in local axe production (Jaksland 2005). There is a large end moraine dominating the subsoil on the south-eastern coast (Fig. 8.1) whilst, in western Norway, most of

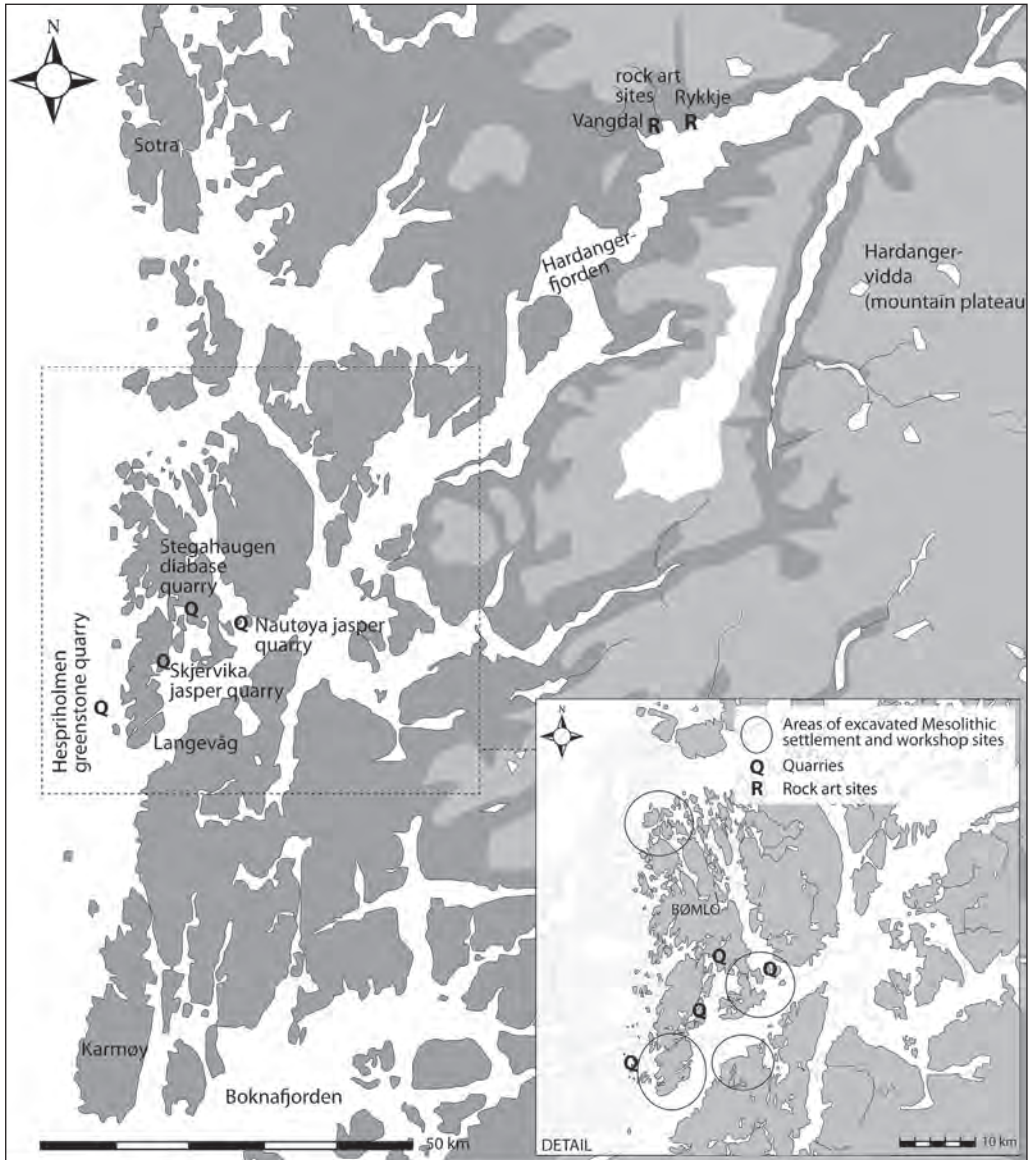


Fig. 8.4: Hespriholmen are located in the vicinity of other known quarries, workshop and settlement sites, but the location of rock art sites is different in this district, compared to Stakalleneset (illustration: A. J. Nyland).

the moraines left by the glaciers have today transgressed. Hence, this variation in practice may have been initiated by the different natural pre-conditions. However, chronological variations in preferences and practices within the regions suggest that natural pre-conditions cannot solely explain the patterns, practices that we see developed in taskscapes.

In my research (Nyland 2016), I have found that there are both temporal and spatial variations in procurement practices, in the preferences of different rock types, and whether the practice appears included into the domestic setting. Alongside quarrying, the collection of flint and other rock types from the beaches and moraines persisted across southern Norway. Quarrying and collecting rock was both intensely or moderately performed, being undertaken as planned or spontaneous activities. However, whilst quarrying leaves physical identifiable traces on the rock face, in spoil heaps and the work areas at extraction sites, procurement involving the collection of rocks from beaches and moraines can only be identified in lithic materials found at settlement sites (e.g. Johansen 2004; Jakslund 2005). Moraines may also have been regarded as important places by individual and groups, used and reused for their properties as never ending sources of quality raw materials (Driscoll 2009, 13). However, we can be clear that collecting and quarrying were different practices, each with their own purpose or role within local social structures which marked the land and place differently.

The variances in the procurement practices can, as in the aforementioned methodology of the *chaîne opératoire*, be described by six different *procurement concepts*:

- I. Exploitation of long duration, and regional, or modest, distribution of the extracted rock;
- II. Intense exploitation of short duration, either local and/or regional distribution;
- III. Moderate or small-scale exploitation, modest duration and local distribution;
- IV. 'Household quarries', or exploitation of 'on-site sources';
- V. Opportunistic exploitation of deposits;
- VI. Rock collecting from beaches, sources or moraines.

The identification of any one of these concepts may not be significant in itself, but when several practices coexist within an area, contrasting with one another, anomalies or trends viewed across regions gain distinction. In the following analysis, I present a review of the developments in lithic procurement practices in Mesolithic eastern and western Norway, specifically focussing on the variation in the exploitation of adze-quarries. There is an evident transition from a common practice across southern Norway in the Middle Mesolithic to an increased regional differentiation in the Late Mesolithic habits between western and eastern Norway. All of the above mentioned concepts, except no. II, are found to have been practised during the Mesolithic across southern Norway. However, by the Late Mesolithic, it seems that concept no. I had developed in western Norway, whilst procurement concept no. VI was most prominent in the east, as specifically used to acquire rock for adze-production.

Establishing the concept of return to marked places of significance in the Middle Mesolithic

After 9500 BC, as the coast became ice free after the end of the last Ice Age, the coastal areas of Norway were rapidly populated by immigrating, 'pioneer' groups

arriving from southern Sweden and the Continent. The parallel findings of lithic technologies found across Norway and the rest of southern Scandinavia throughout the Early Mesolithic, coupled with evidence of repeated patterns of small, short term settlement sites, indicate a highly mobile and changing society. During this phase, flint was the most common type of rock used for the production of tools such as flake and core adzes, arrowheads, knives and scrapers. Later on in the Early Mesolithic, alternatives to flint, such as quartz, quartzites, rock-crystal and meta-rhyolite were also commonly used. All of the latter types of rock have similar knapping properties to flint and were knapped using the same technologies. No quarries have been dated to this period in southern Norway, and it is thought that random quartz veins, sources or rock found at the beaches were exploited opportunistically, but deliberately so by individuals in search of suitable alternative raw materials (Nyland and Amundsen 2012, 167). When interpreted in the context of the aforementioned structure of procurement concept analysis, this kind of procurement practice represents types III, IV, V and VI.

By 8000 BC, the weather had warmed up and the interior of southern Norway had become deglaciated (Nesje and Dahl 1993, 258). This opened up new possibilities for individuals and groups to move through the interior and mountain landscapes, and may explain the changes in contact networks leading to developments in material culture, as well as the similarities seen in the archaeological record appearing in the first half of the Middle Mesolithic. A particular characteristic of this change in social and geographical structure is illustrated by the new type of adze introduced in southern Norway and Sweden shortly after 8000 BC (*e.g.* Bjerck 1986; 2008; Olsen 1992; Nordqvist 1999; Mansrud 2008; Mjærum 2010). The new shared type of adze had a rounded cross-section, point-butt neck, physically it is similar to a core adze, but is distinct in its finish; it could be pecked, but was typically ground and polished into shape (Fig. 8.5).

Moreover, with the introduction of the new type of adze, raw materials other than flint were preferred for this purpose. Hence, from the Middle Mesolithic onwards, rock types such as diabase, greenstone, sandstone, hornfels and others were increasingly exploited. These rock types are abundant in Norwegian geology, and all are more easily ground than flint. The increasing production of this type of adze in southern Norway could accordingly have generated the impetus for the establishment of regular quarrying at numerous sites. From this period onwards, quarrying appears to have been undertaken several places and not only exploiting known sites for adze materials, but quarrying for quartzites and jasper as well (Fig. 8.2, Table 8.1). With this change in procurement practices during the first half of the Middle Mesolithic, the notion of deliberate and planned return to particular places for quarrying was established in southern Norway (Nyland 2016).

The introduction of the new form of adze and establishment of regular quarrying in the Middle Mesolithic coincided with a number of other changes in the archaeological material record as well. There are clear parallels in materials discovered in southern

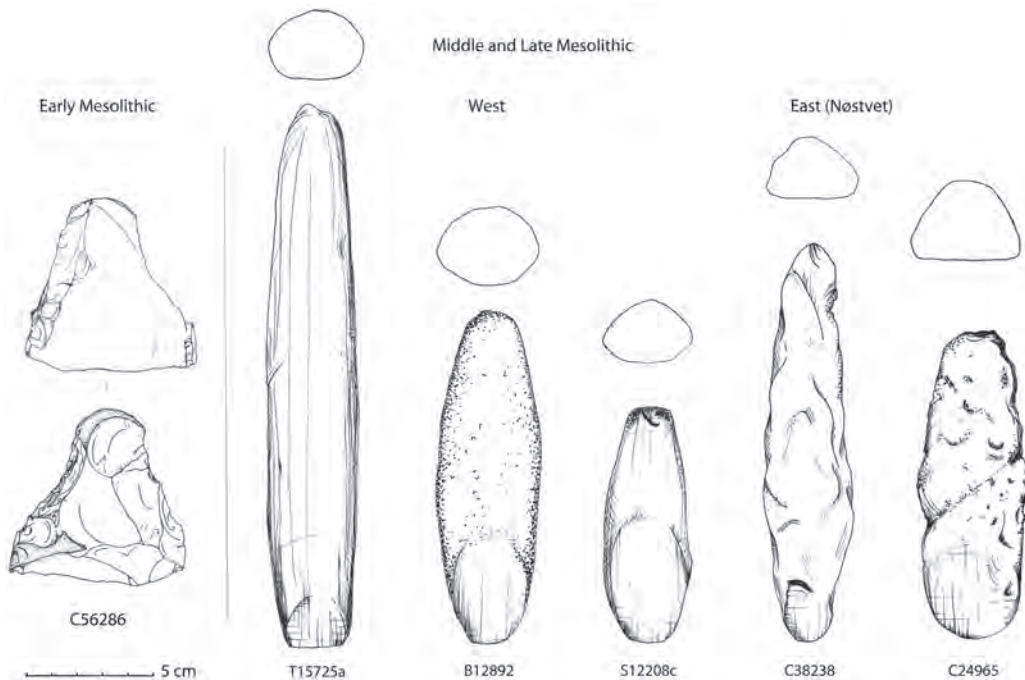


Fig. 8.5: Schematic outline of Middle Mesolithic (far left) and Late Mesolithic adzes from southern Norway. Edges are facing up. In the Early and first part of the Middle Mesolithic there are also core adzes of flint, or flint-like rock types (illustration: A. J. Nyland).

Norway and Sweden such as microlith types, blade technologies (e.g. Damlien 2014; Sørensen *et al.* 2013), and the use of simple and crucible shaped pickaxes (e.g. Gräslund 1961; Olsen 1992; Nordqvist 2000; Glørstad 2002; Skår 2003). The character of settlement sites across southern Norway is mostly short-term; however, that being said, it is also the time the first pit houses appear in southern Norway (e.g. Solheim and Olsen 2013). When these findings are viewed in conjunction with information that illustrates the dispersal of technology, tool types and production concepts, the evidence expresses a shared cultural and social link in practices between regions. This again validates the case that there was indeed a wide contact network of people and regular meetings between them.

The activity at the quarries is presented in Figure 8.6, together with a supraregional timeline sequencing the Stone Age of southern Norway into chronozones. The Mesolithic chronozones were advocated by Hein Bjerck (1986; 2008) after finding that regional chronological sequencing developed in western and eastern Norwegian archaeology respectively appeared to obfuscate comparative studies. In Bjerck's timeline the traditional separations between Early, Middle and Late Mesolithic are retained, but each period is divided into equal sequences of 500 years, disregarding the regional names of phases. It is, however, worth noting that the time periods

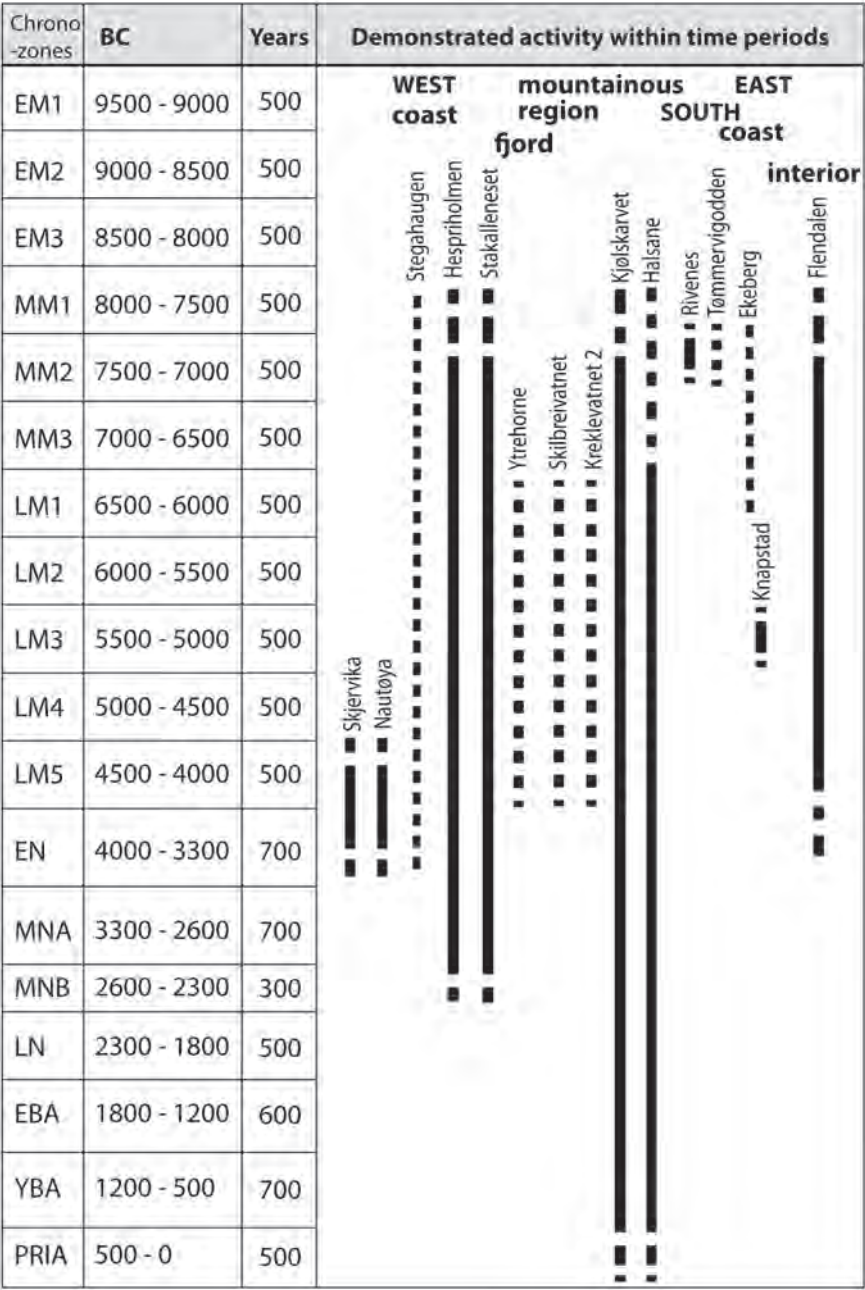


Fig. 8.6: Timeline showing the time depth of activity during the Mesolithic at the various extraction sites. Note the dotted lines represent uncertain dates, i.e. the sites were probably used once or several times within the period which the dotted line covers. It is also important to note that the solid lines do not represent continuous activity at the sites, but there is activity within each period which has been dated. Finally, there are also variations in the intensity of exploitation within the time periods presented (illustration: A. J. Nyland).

of the Neolithic and Bronze Age are correlated to the general south Scandinavian sequencing frameworks.

Pragmatically, quarry sites represented predictable supplies of suitable and preferred raw materials for the new type of adze. However, in such a mobile society, an appreciation of the idea of *returning* to specific places of note seems to develop during the Middle Mesolithic as well. This notion of the importance of locale seems to manifest as a function of these changes are reflect in group habits and behaviour. This is evidenced in the regular quarrying of many sites such as Stakalleneset (2), Hespriholmen (6), Rivenes (11), Flendalen (14), Kjølskarvet (4) and Halsane (5), and probably also at Ekeberg (13)¹ though not as extensively as the others. Furthermore, regional characteristics in assemblages discovered indicate a budding regional affinity developing amongst workers at these sites developed too. For example, the identified dispersal patterns of axes and preforms of Hespriholmen-greenstone and Stakalleneset-diabase indicates how peoples' movements begun to become confined to specific areas. The sourcing of more than 2000 Mesolithic adzes found in western Norway, using geochemical analysis, petrography and visual methods (Kolderup 1925; Fægri 1944; Olsen 1981; Alsaker 1982; Fig. 8.7), support these theories. These areas were interpreted as social territories (Olsen and Alsaker 1984), which has been

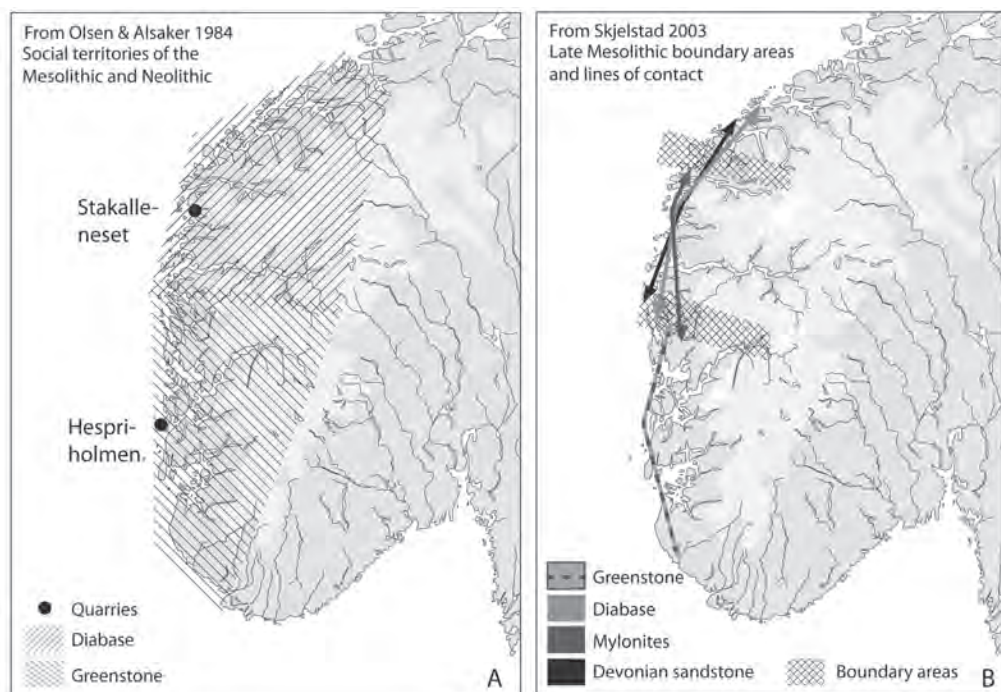


Fig. 8.7: Mesolithic social territories in western Norway, A: as defined by Olsen and Alsaker (1984) and B: of Guro Skjelstad (2003). Reproduced with kind permission from the authors (composite illustration: A. J. Nyland).

latterly confirmed through the examination of debitage from other rock evidence and tool types (Skjelstad 2003).

Along the western coastline, there were other available and exploited deposits of diabase and greenstone, documented as part of Mesolithic axes studies (*cf.* Olsen 1981; Alsaker 1982; Gjerland 1984; Alsaker 1987). It seems however that none of these sources were used in the same manner, at the same scale or for the same length in duration as the quarries situated at Stakalleneset and Hespriholmen. Moreover, the aforementioned specialised workshop sites for the production of adzes from rock from these sites also suggest that the rock procured from these sites could have been regarded as significant in itself. Generally their locations were detached from the quarry sites, but situated in the vicinity, the material at these sites suggests that only adze preform production occurred at these sites (Figs 8.3 and 8.4).

In eastern Norway, in the first half of the Middle Mesolithic, quarrying seems to have been a practiced method of procurement in this region as well, exemplified by the two small quarries at Rivenes (11) and Ekeberg (13). However, studies of adze production debitage from known Middle Mesolithic settlement sites, along the southern coastline, indicate a wide range of local rock types utilised in the production of adzes (*e.g.* Mansrud 2008; Solheim and Damlien 2013; Persson 2014; Melvold and Eigeland 2014). It could be that new extensive surveys will reveal more quarry sites and that the variety of raw materials discovered is related to geological accessibility rather than, as we have seen in other regions, specific sources being deliberately targeted and reused. However, another explanation is that there is a different set of concepts or behaviours in groups operating in the eastern regions than at Hespriholmen and Stakalleneset. It seems that the groups in the east have a different relationship with sites and have a different level of investment in returning to particular outcrops, or types of rock than we see in the west. Furthermore, another distinct observable difference between the eastern and western regions is the eastern lack of specialised workshop sites established for adze production observed at the key sites in the west.

Hence, the deposits at Hespriholmen and Stakalleneset in the west were continually exploited from the Middle Mesolithic and throughout the Late Mesolithic, even during the seas' temporary transgression of the western coast that started in the final half of the Middle Mesolithic. In roughly 7000 BC the transgression started to cover the lowest lying parts of the quarry site at Hespriholmen. Despite the sea slowly rising and covering the area, the islet itself was not abandoned. Instead, quarrying continued on higher ground on the islet where charcoal from fires has been discovered in the waste piles. Fire is believed to be used as a specific quarrying technique. Evidence from these waste piles recovered at the top of the islet has been dated to the LM5 chronozone and the Early Neolithic (Alsaker 1982).

At Stakalleneset, the seas transgression could well have been the reason for the move of quarrying activity to the elevated parts of the diabase dyke on the headland as well. Waste piles found in those parts of the dyke have been dated to the Late Mesolithic too (Olsen 1981). Whereas the transgressing sea at Rivenes on the southern

coast (11) resulted in the dyke being abandoned. The diabase dyke was no longer used from the final half of the Middle Mesolithic despite the fact that the diabase deposit remained available in higher terrain nearby. The evidence suggests a lack of attachment to one designated source of quarrying for axe materials in eastern Norway. When compared to western Norway, this indicates that procurement practices were indeed distinct reflecting fundamentally different type of engagement in groups, with the rock exploited and with the land itself. This variation in behaviour resulted in the creation of truly distinct taskscape becoming even more noticeable in the Late Mesolithic.

Developing regionality in the Late Mesolithic

The western taskscape

From about 5500 BC the type and volume of archaeological materials, and increasing thickness of cultural layers at settlement sites, indicate a tendency of increasing semi-sedentism amongst the hunter-gatherer-fisher groups living along the western coast, particularly prominent around rich tidal currents. It has been suggested that there was an increasing reliance on specialised task groups resulting in a way of life that became less mobile during the Late Mesolithic (cf. Olsen 1992; Bergsvik 2001; 2002). The exploitation of Stakalleneset and Hespriholmen continued during this period, as did the wide distribution of rock from them to their nearby regions (Olsen and Alsaker 1984, 98). As stated, the examination of adzes demonstrated that rocks originating in Hespriholmen or Stakalleneset are often found in mixed assemblages with other local rock types (e.g. Skjelstad 2003, 82). However, the prevalence of material from these two key quarries indicates that they held significance beyond solely the functional aspects of procurement and production.

Ethnographic studies have shown that certain raw material sources can be connected with myths of ancestral beings or ideas of origin for specific groups or peoples (e.g. Gould 1978; Jones and White 1988; Hampton 1999). That is to say a rock from a particular place or quarry can be assigned specific meaning beyond its functional qualities. If a place was perceived to be saturated with a social, symbolic or cosmological importance, a rock from such a place could have become a memento or a physical embodiment of these properties. Thus, rocks from specific places can be perceived as *pieces of places* (Bradley 2000, 90). Consequently, possessing or acquiring a piece of a place could therefore reflect the carrier's cultural identity, group affinity, or sense of regional belonging. The practice of staged preparation of adzes starting at specialised workshop sites, leaving the finishing stages of production to be undertaken at the settlement sites, continued in the Late Mesolithic. This suggests there was a sustained importance associated with the practice of keeping parts of the adze production secluded from the mundane sphere of everyday life.

The quarries at Hespriholmen (Fig. 8.8) and Stakalleneset (Fig. 8.9), having been exploited and revisited throughout the Middle Mesolithic, continuing in use

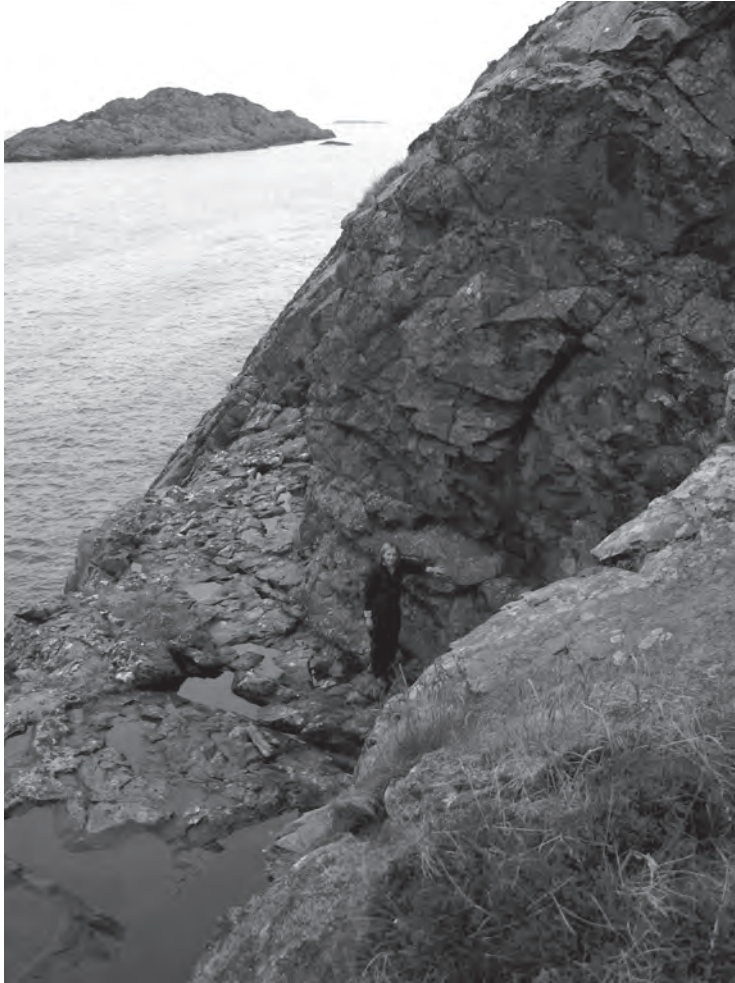


Fig. 8.8: The main quarry at Hespriholmen. The lowest part of the quarry, where the person is standing, was transgressed by the sea between approximately 7000 BC and 500 BC (photo: A. J. Nyland).

through the Late Mesolithic, became places known to manifest the activities of past generations. As a result it is also possible that these quarried sites could have been seen to represent the enduring presence of ancestors in the landscape and thereby becoming the locus of the groups' origin. The continued exploitation of these sites signals that the rock and quarry sites held an important place in the communities, becoming integrated places of activity and focus in the taskscape of the contemporary society. The confined spaces of the quarries, the secluded spheres of adze production, and an intensification of rock art production at the end of the Late Mesolithic (cf. Lødøen 2013; 2014; Fuglestad 2010) map a meshwork of paths of movement in time and space, with these significant spaces of specific action being the tangles in



Fig. 8.9: Part of the quarried diabase dyke at Stakalleneset. The dyke is around 1.5 m wide. The concave side walls and floor sole imply the use of fire as a quarrying technique (photo: A. J. Nyland).

this meshwork. With regard to the quarried places, this type of engagement with land and rock secured the sites' continued existence; the repeated visits and insistence to use rock from specific places, despite other rock types of equal quality being accessible elsewhere, maintained and secured their practical and symbolic role as places of importance. Hence, *the physical act of quarrying*, through direct and repeated engagement with specific outcrops appears to have had significant importance in western Norway. Quarrying can be seen an expressive and communicative act in Mesolithic society, and to continue quarrying at a place, in particular those so tangibly marked by past generations, could have been part of keeping history and tradition

alive, present and visible. The continued practice of procurement in these places could also have materialised a group's sense of place in time and location, weaving them tightly into contemporary ethnographies and symbolic systems.

Moreover, whilst considerable greenstone was quarried for adze production at Hespriholmen and Stegahaugen (7), two more outcrops were also quarried around the island of Bømlo. That is to say two red jasper deposits were quarried in Nautøya (8) (Nyland 2012a) and Skjervika (9) (Nyland 2012b) at the very end of the Late Mesolithic. This activity continued into the Early Neolithic. However, in the Late Mesolithic phase, only less than 1% of the finds found at settlement sites surrounding these quarries were jasper used for flake and blade tools (Nyland 2016), even though both quarries were located in close proximity to contemporary settlement sites. Instead, assemblages are primarily comprised of flint, and at some of the settlement sites more than 30% of the materials discovered were dominantly made of quartz and quartzites (Kristoffersen and Warren 2001; Nyland 2016). Flint could be collected at the beaches, as could quartz/quartzites. Thus, despite the fact that jasper was not widely used, efforts were made *to quarry* it. One explanation could be that a greater significance was attached to the red rock. Another explanation theory might be that *quarrying* in itself had become perceived as a particularly expressive practice, significant to groups and entangled in their social or symbolic belief systems, given the significance *attributed* to specific places and traditions associated with these sites.

The different concepts of quarrying found in the western region, *i.e.* to collect rock, to quarry on a very small scale at local outcrops, as well as the more opportunistic exploitations of other sources, all contrast with the practice of quarrying at places of great time depth and distributing the particular rock widely. When these practices are reviewed across the area they illustrate a complex picture that suggests that groups preferred certain locations for settling, as well as rock procurement, or places for making rock art. The sites exploited in the landscape tell a compelling story of engagement with the localities and region; the narrative is however quite distinct from the story found in eastern Norway.

Eastern taskscapes

In the first half of the Middle Mesolithic, quarrying was practised in both eastern and western Norway. However, the practice of reusing specific outcrops through millennium did not develop in the east as it did in the west. During the Late Mesolithic, the differences between taskscapes in the western and eastern region became even more marked.

In the Late Mesolithic, and in particular in the 'classical Nøstvet period' starting around 5500 BC (Glørstad 2010, 57), the degree of sedentism increased, settlements aggregated at the head of the Oslo-fjord. There was also a noticeable increase in the scale of adze production (Glørstad 2010, 58). This can be seen specifically in some settlement sites where assemblages comprise more than 300 adzes, compared to

perhaps 30 at most at contemporary sites in the western region. However, no large adze quarries have been found in the east that can be seen as comparable to those in the west. Instead, a variety of rock types were used in the 'Nøstvet adzes' found in the coastal settlements of the region (*e.g.* Jaksland, 2005; Mikkelsen 1975). Lasse Jaksland (2005, 80) suggested that the variety of rock types used in axe production found at each settlement site was probably a result of lithic raw materials being collected from the many moraines found in eastern Norway. This suggests that because there was a ready availability of suitable rock in moraines, there was no specific need to quarry.

In eastern Norway, there are no known specialised workshop sites for adze production of the sort found in the west besides the possible initial reduction of blanks at procurement sites (Eigeland and Fossum 2014). Significantly, axe production does not seem to be secluded from the household sphere. This is also evident in the exploitation of a diabase sill located within the settlement site R114 Knapstad in Akershus during the period of occupation. At the site, there was debris from all stages of adze production, together with other lithic debitage and debris from household activities (Berg 1995, 133). Hence, this site exemplifies another form of 'embedded procurement', which is quite distinct from the practice of obtaining lithics when already moving through the landscape, as described in the aforementioned definition by Binford. This type of embeddedness involves adze production into the household sphere and clearly evidences that the process of adze production was intertwined in group identity and structures, but in an entirely different manner than has been seen observed in the west.

We can assume that, to some extent, natural pre-conditions influenced procurement practices, given that there are considerably more moraines in eastern Norway than in the west. Moreover, the sea level receded more rapidly in the east, having had a higher marine maximum level, and without a temporary transgression as took place in the west. The fact that the sea continually receded during the Mesolithic, together with the geological variety, in all probability influenced the relationship between people, places and rock, resulting in less continued use of specific outcrops, but an extended use of moraines. Moreover, this could also have influenced the establishment and continuation in the use of rock art sites, as there are no large rock art sites similar to Vingen and Ausevik in eastern Norway. There are, however, several smaller ones distributed both at the coast and along the river systems inland (Mikkelsen 1977). The distinctions in the use of land could in turn have become incorporated practices contrasting the eastern traditions to those of the west, including both procurement and rock art making, resulting in different taskscape.

Final remarks

The evidence suggests that in eastern and western Norway taskscape developed during the Mesolithic and supported an explosion in lithic procurement, axe or adze production, semi-sedentary settlements development and the creation of rock

art in the Late Mesolithic. However as the study outlines one cannot assume that all of the differences in regional development can be explained away by geological preconditions and pragmatics. The variety and complexity of activities at specific sites (or within specific regions) indicates that lithic procurement practices should be treated as socially and historically situated practices or behaviours, creating narratives that define regional differentiations between groups.

After the initial phase of regular quarrying in southern Norway in the Middle Mesolithic, some quarries in western Norway were apparently assigned significance beyond being solely seen as predictable sources for high quality rock suited for tool production. Two specific extraction sites, Stakalleneset and Hespriholmen, were used and reused for several millennia, and seem to have become entangled in symbolism, having a broader societal significance becoming seen as loci of origins relating to place and ancestors through time. The distribution of the diabase and greenstone from these sites indicates the creation of defined social territories.

In the Middle Mesolithic, the dispersal of rock may reflect the movements of small mobile hunter-gatherer groups through the land, who we may surmise had an inclination to return to a specific outcrop to quarry in their annual rounds. By the Late Mesolithic, the quarrying had left solid hollows in the outcrop and diabase dyke. The awareness of past generations and ancestors linked groups to sites that manifested a greater role or significance to their society, which they could attribute to the physical presence of tangible monumental quarries. As the society became more sedentary, the same quarries continued to be used but perhaps even more consciously. These outcrops were continuously quarried, despite other sources providing rock of similarly high quality being equally accessible. This rock was distributed to the surrounding district or social territory. The processes of controlling access to the quarry and the distribution of rock could be interpreted as a means for individuals to link to a tangible past or one of mythical origin, the activities associated with these sites could therefore be seen as methods of ritual activity that bound groups together. Through time, the intertwined practice of use and symbolic significance would have made societies dependent on particular sites in the maintenance of social structures (cf. Hodder 2012).

During the Mesolithic different taskscapes developed in western and eastern Norway. What distinguishes the continued use of the two sites at Hespriholmen and Stakalleneset in western Norway from the lithic procurement in eastern Norway is the eastern dominating practice of collecting various rock types from moraines. Although moraines and rock from moraines can also be regarded as *pieces of places*, the action of collecting rocks is fundamentally different in character to the activity of quarrying. Collection does not leave a mark in the landscape as you find at quarry sites. Moreover, given there were a variety of rocks available in the moraines, rocks did not function as markers of places in the same way either. In addition to being geological and naturally preconditioned, evidence suggests that ongoing procurement practices, reflecting different concepts or templates of the groups and communities

that lived within them and can thereby also be seen as reflecting different socially constructed tasksapes.

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Note

1. Tømmervigodden (10) is today destroyed. Its existence was only superficially described in the late 1990s and has not been properly confirmed archaeologically.

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Chapter 9

Stone and social circles: taskscape and landscape survey at Yadlee Stone Circle

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Introduction

Tim Ingold (1993, 172) concluded his paper ‘The Temporality of the Landscape’ by stating that it had not been therein concerned with the methods or results of archaeological enquiry, but in defining his view of the study of archaeology. This paper will begin where Ingold left off, by investigating how an appreciation of taskscapes can be translated into a field survey methodology for archaeologists.

By considering taskscape theory as a research methodology, and applying it in the form of a field survey of the valley hollow surrounding Yadlee Stone Circle in the Scottish Lammermuirs (Moor 2009), the authors have been able to establish the potential value of this theoretical outlook in practical landscape archaeology. Using taskscapes, and the interaction of landscape, sky, and individual agents, the authors suggest the possibility that multiple sites within the landscape may be connected, due to their observed archaeoastronomical relations and inter-visibility.

Using this tentative interpretation as a vehicle for discussion, the authors evaluate the social implications of site construction and use within an upland landscape in transition between seasons, and potential patterns of transience in upland areas. Although the data set collected and analysed through the survey of Yadlee is small and indefinite, discussion on social interactions within taskscape theory has the potential to shed light upon the parameters of theoretical applications, including the appreciation of the sky, and the concept of skyscapes within taskscape theory and archaeological interpretation.

Archaeoastronomy in its simplest form explores the interaction of landscape, taskscape, and sky, and can add a new dimension to interpretations of human agency, land use, cognitive experiences, and social interaction in the past (Ruggles 1984; 2000, 151).

Taskscape theory – manifest as survey

‘Taskscape’ theory suggests that each individual act within an activity encompasses developing social interactions, changes in cognitive or psychological perception, and the construction of a shared knowledge and experience amongst individual agents and groups (Ingold 1993, 170). No action is singular or isolated, all occur within a meshwork of activity. Thus, during the process of a task being undertaken, a social space is constructed which, although invisible, contains a set of boundaries which are enforced by the physical and social setting of the task. A task could be conducted at a location, the significance of which is defined by the task itself. Obvious examples include a place of congregation, being physically constructed as the vessel for activities of socialisation, embodying aspects of the beliefs, interaction, and social calendars of the individuals who conduct said activities. The structure is only constructed – a task in itself – because of the initial necessity of congregation, but could exist as a physical trace after that task is completed, perhaps for millennia. The impact of tasks upon the land, through physical imprint, is what creates the landscape (Ingold 1993, 154).

Just as landscape is in continuous flux, taskscapes are never static or isolated (Ingold 1993, 154). As with the example above, the need for congregation (task 1) necessitates the construction of a building (task 2). This in turn necessitates the procurement of building resources (task 3), the organisation of labour (task 4), the supporting surplus of food and resources for those procuring resources (task 5), the procurement of those supporting resources (task 6), the craft specialisation required in construction (task 7) and its prerequisite training (task 8). This list will develop rapidly into an incomprehensible quantity and diversity of tasks. Each of these tasks themselves contain myriad smaller tasks, subsequently creating its own social sphere of interaction. As time progresses, taskscapes and their physical representations stack within the archaeological record (Darvill 2002, 421).

The taskscape can be seen as parallel to landscape; modified and created by interactions with cultural (LeeDecker 1994, 345) and natural (Tani 1995, 231) forces, and constantly under a process of change as these forces act (Binford 1978, 167; 1983, 190; Schiffer 1983, 675; 1985). The landscape is the physical representation, or ‘congealed’ form (Ingold 1993, 162), of tasks and activities. Because of this, archaeologists can only investigate taskscapes through an investigation of landscape and its temporality.

Yadlee Stone Circle

Yadlee Stone Circle (NT 65403 67319) sits within a basin surrounded by low hills in the north-east of the Lammermuir Hills (Fig. 9.1), in East Lothian and the Scottish Borders (Gardner *et al.* 2014, 4). The Lammermuirs are an extensive hill system defining the natural southern limits of the East Lothian coastal plain (Harper 1962, 36). This location creates a vivid upland/lowland distinction with one of the Scottish Bronze Age’s most fertile and active areas. In contrast, the Lammermuirs are topographically

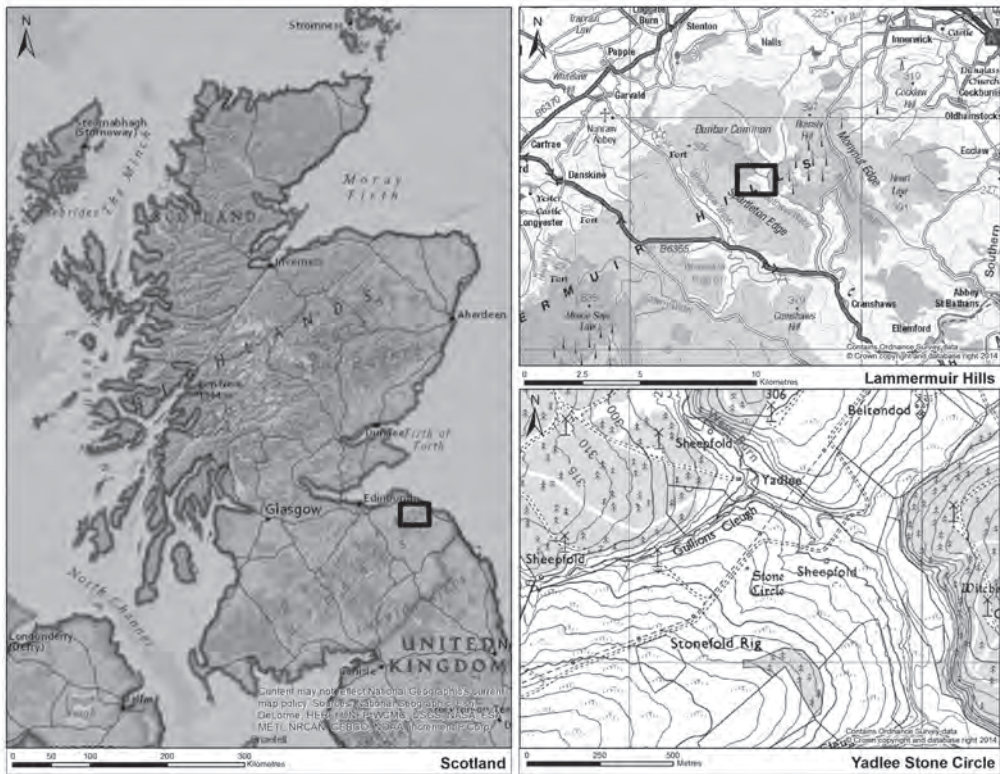


Fig. 9.1: Yadlee location map (illustration: T. Gardner; map data: ©National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P. corp. ©Crown Copyright/database right 2015. An Ordnance Survey/EDINA supplied service).

inaccessible and barren, with thin soils and glacial till overlying a predominantly shale and limestone bedrock (Sissons 1958). The barrier of the hill system is segmented by fluvial incisions which provide access to the area from the coastal plain (Fig. 9.2). Limited tree cover is due to long-term grazing and deforestation, some dating from the prehistoric (Smout 2003; Ramsay 2014). Limited rig and furrow projects into the lower basins of these upland areas, obscuring the potential for a complete standing monument record (Halliday 1993, 78). Towards the peaks of the system the impact of this is significantly reduced, although the potential for prehistoric agriculture exerting damage on its almost contemporary record cannot be ruled out without further work (Halliday 1993, 74).

The past economy reflects itself in the surviving archaeological record of standing monuments, as identified from the RCAHMS CANMORE database. The survival of small monuments such as Yadlee Stone Circle, small home-steadings, cairns, and hill-forts, attest to a landscape largely untouched by deep ploughing, but cropped by domestic animals for centuries (Harper 1962, 36). The new activity currently impacting on the

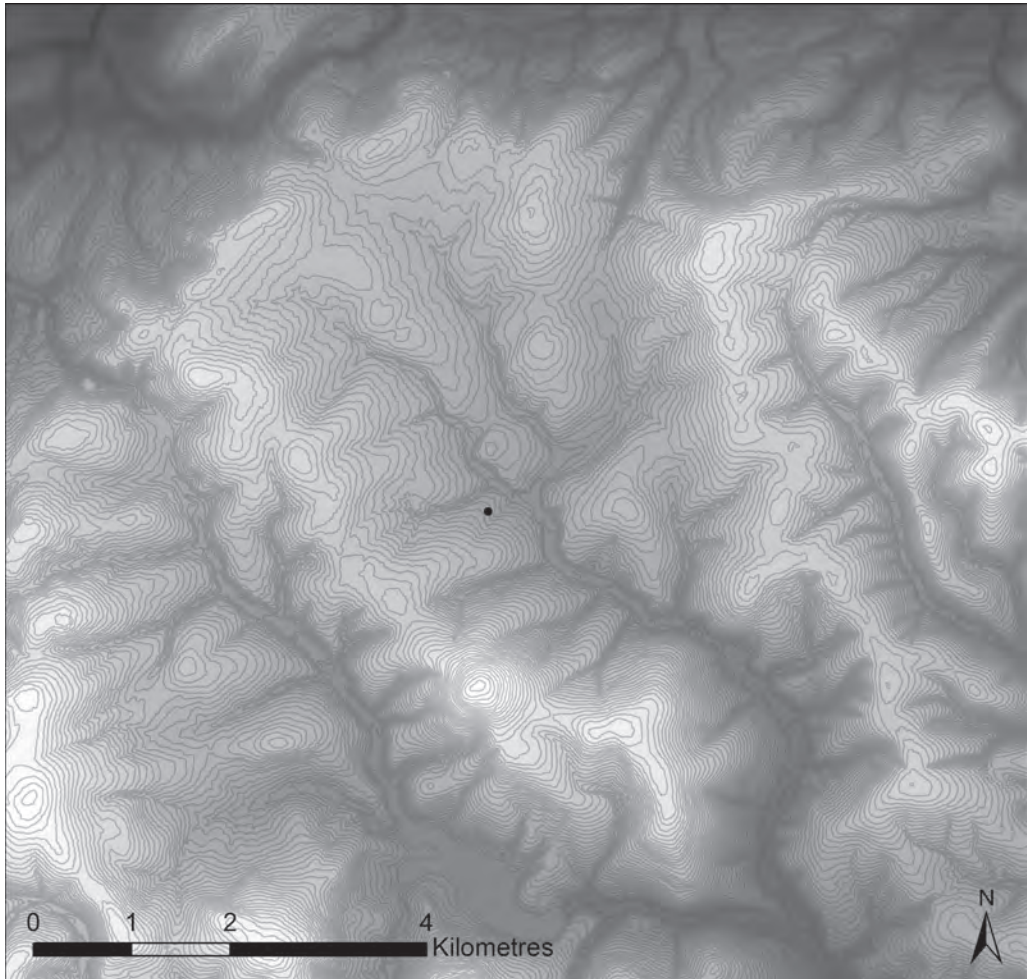


Fig. 9.2: Topography around the Yadlee complex, with the East Lothian plain dipping away to the north (illustration: T. Gardner; map data: ©Crown Copyright/database right 2015. An Ordnance Survey/EDINA supplied service).

landscape centres around the production of renewable energy with the construction of large-scale wind-farms, Crystal Rigg I and II (Steele 2005; Moore 2009, 1; Olsen 2014).

Little recent attention has been paid to stone circle sites in the Lammermuir Hills despite the number and significance of sites in the region (Hill and Suddaby 2007; Jones 2008; Moore 2009, 19). Surveys of stone circles exist in Burl's (1988, 125) work, but are limited in detail, and sadly somewhat dated in interpretation. Burl conducted surveys on nearby stone circles such as Crow Stones and Kingside (Burl 1988, 124), which are located in the valley to the immediate west of Yadlee. Their proximity is interesting, especially considering the nature of meshworks and tasksapes. It would

be interesting to assess the possibility of an integrated suite of monuments across several valleys in the Lammermuirs.

The focus of the theoretical exercise

Yadlee Stone Circle (SAM No. 4443 – HS 1988) lies in a central position within a basin with limited visual contact with areas outside. Even as the most tangible evidence of prehistoric activity in the immediate area (Moore 2009), there is no denying that Yadlee Stone Circle is small and seemingly insignificant (Gardner *et al.* 2014, 9). One could easily walk through the centre of it without noticing its existence, the maximum height of any stone above the ground being 0.4 m (Fig. 9.3; Feachem 1963).

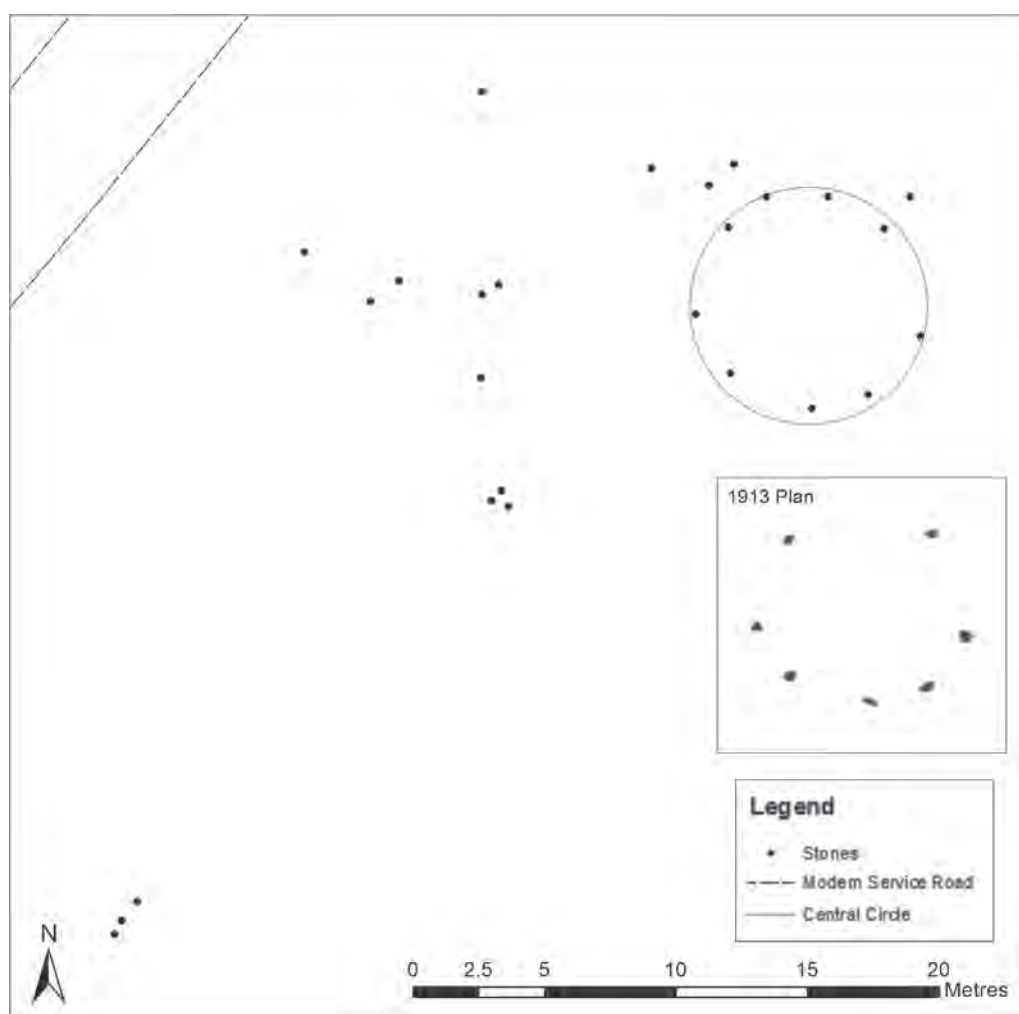


Fig. 9.3: Site plan (illustration: T. Gardner).

The monument was first surveyed in 1913 (RCAHMS 1924) which identified seven stones from the primary ring of the circle. A further study in 1979 identified the potential for outlying stones, but doubted their relation to the central arrangement (RCAHMS 2013). The authors' survey sought to re-evaluate that previous assessment and identified the aligned outliers which the authors believe to form part of the original structure. We identified 25 stones, with a central ring of nine, but the potential for more has not been ruled out (Fig. 9.3). Field-survey focussed upon Yadlee Stone Circle, rendering the site and its stones as 3D models and planning the monument and the immediate topography within which it sat. A grid of field-walking 100 m² around the monument was undertaken to rule out the potential of it being a coincidental accumulation of erratic stones (Gardner *et al.* 2014, 9).

The topography – in relation to archaeoastronomy

General understanding of stone circle morphology and architecture has begun to acknowledge the possibility of associations between alignments within stone circles and significant topographical features (Ruggles 1984; Burl 1991, 53). Natural focal points such as peaks and troughs can affect the setting and rising points of the sun, and depending on the specific topography of the localised horizon can accentuate the significance of alignments within the stone circle itself (Fisher *et al.* 1997, 581). As horizons change depending upon where they are perceived from (Ingold 1993, 166), the authors used viewshed analysis tools in ArcGIS © and Global Mapper © software to identify the horizon visible from the stone circle. This established visual limits from the stone circle as an upper limit within the landscape.

Satellite sites

Only four prominent landscape features lay within the trajectory of the sun across the horizon, and as the investigation focussed on solar movements rather than lunar or celestial, these were assessed. Three of these four potential areas of interest provided previously identified archaeological remains, all in the form of cairns (Fig. 9.4; Hill and Suddaby 2007; Moore 2009, 18; Gardner *et al.* 2014, 12). Witches Cairn to the east of Yadlee (NT 66451 67239), proved to be a small, turf covered mound of stone, c. 21 m in diameter standing to a height of c. 1 m. Spartleton Cairn to the south of Yadlee (NT 6532 6554), was a smaller mound of 17 m east–west, and 15.5 m north–south, standing to a height of 1.1 m in the centre, constructed again of stone now largely covered with foliage, with traces of a low ditch to the west dropping to 0.3 m in depth on the surface. Spartleton Edge was located in a small trough on the horizon to the south-west of Yadlee (NT 646 661), in alignment with a group of outlying stones at 232° and showed no evidence of archaeological remains, despite intense field-walking. Finally Rook Law to the west of Yadlee (NT 6393 6697) was surveyed, which showed evidence of a small cairn under a covering of foliage (0.1 m), which measured at 9.4 m in diameter, rising to 0.5 m. Field-walking for 50 m² surrounding each satellite

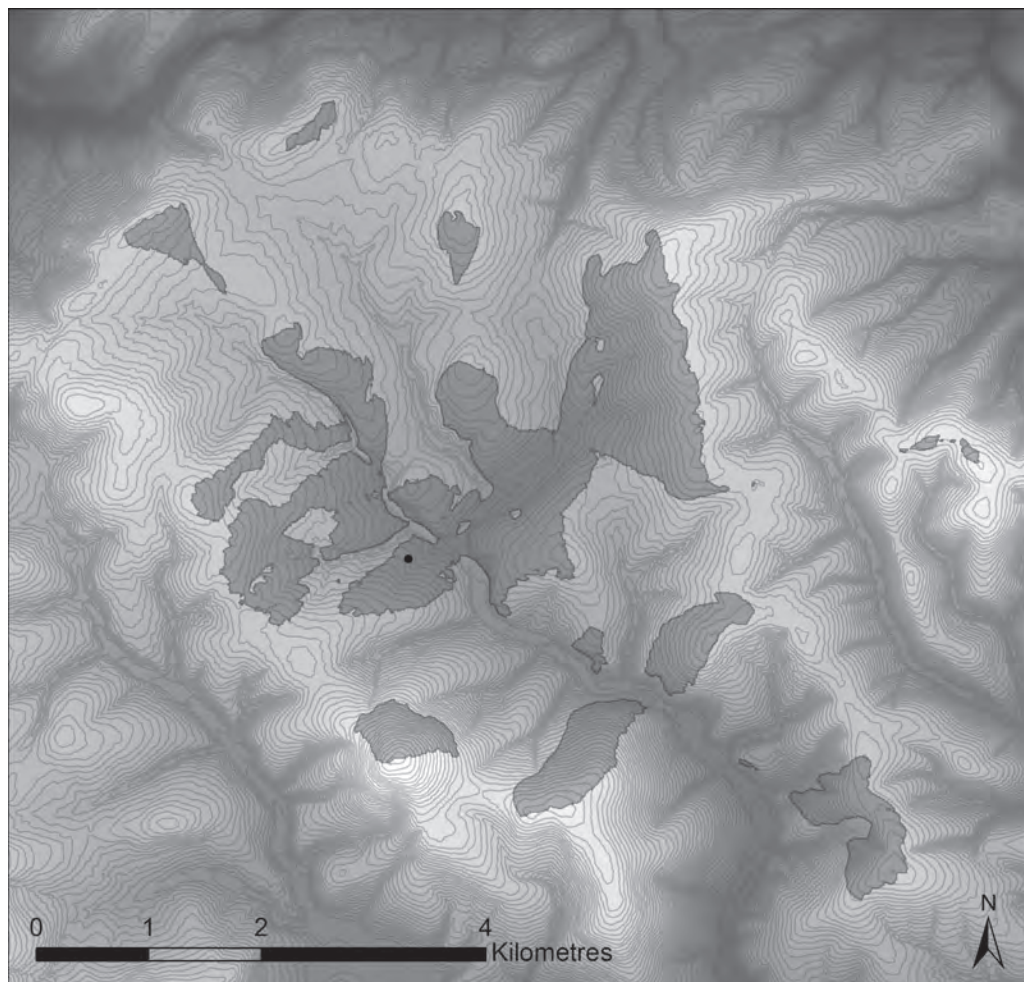


Fig. 9.4: Topography around the Yadlee complex with the areas visible from the site highlighted (illustration: T. Gardner; map data: ©Crown Copyright/database right 2015. An Ordnance Survey/EDINA supplied service).

monument failed to identify any other mounds or accumulations of stones which could have indicated other features.

Solar movements

Assessing solar movements from Yadlee Stone Circle, in association with the satellite cairns, proved difficult considering the often overcast weather in southern Scotland. Google Earth © and Stellarium © software made it possible to drop a visual node into the centre of Yadlee Stone Circle. This outlined the horizon from the monument, and

then played the sun's cycle across the sky, allowing the team to observe the points of setting and rising of the sun on the horizon, as visible from the stone circle.

Methodology

By acknowledging that the task under analysis had specific prerequisites, it was possible to predict where notable evidence could still exist within the landscape. This was layered into a model to determine the potential and strength of archaeoastronomical references. Only alignments which appeared in all five layers were considered for analysis. There had to be:

- a) An alignment of four or more stones within the stone circle and its outliers.
- b) A continued alignment from the stone circle to a prominent feature on the horizon (*i.e.* peak or trough).
- c) A visible association from the stone circle to the prominent feature on the horizon.
- d) A potential prehistoric marker visible on the prominent landscape feature to consolidate its significance (*i.e.* cairn as identified in CANMORE).
- e) A link between that point on the horizon, and a notable movement of the sun (*i.e.* rising, setting, or its highest point).

Only once all these layers were applied, areas which appeared in all five were tentatively identified as related to the stone circle. Having a knowledge of taskscape in mind prior to beginning survey allowed the project to develop targeted landscape strategy, as it helped identify the components within the palimpsest potentially linked to archaeoastronomy. However, using taskscape theory as an investigative model may have distracted the evaluation from other pertinent evidence within the landscape, through its focussed nature. Despite the lack of definite dating evidence for the four monuments studied, their secure position within all five aspects of the survey methodology suggests a potential relationship between the sites, which will serve for this theoretical exercise.

Yadlee Stone Circle as a focal point, and three satellite cairns at Witches Cairn, Spartleton Cairn, and Rook Law were identified. Together, due to their association in all levels of the survey methodology, these sites form a hypothetical 'Yadlee complex' of monuments, indicated as potentially related. Future archaeological explorations could establish whether there are any real links between sites in the Yadlee complex. While this is a tentative and unsupportable interpretation, it will be used as a springboard for discussion on the more theoretical applications of social networks, taskscape, and skyscape.

Archaeoastronomy

The basics of astronomy require a short explanation, as not all readers may be familiar with the method and theory. As the earth orbits the sun, it rotates, creating periods of dark and light. The earth also tilts on its axis, and the sun rises incrementally closer to south-east, and sets closer to the south-west. This lengthening and shortening

of the days is what gives solstices, as the axial tilt of the earth reaches its most pronounced. Moreover, on a completely flat plain, the sun will rise perfectly to the east and set perfectly to the west when the earth's axial tilt is vertical. This is called the 'equinox', an often problematic term in archaeoastronomy due to its heavily modern connotations (Ruggles 1997, 45). By altering the topography and point of perception, the horizon changes, and thus changes the position which the sun, moon, and stars appear to rise and set (Ritchie 1982; 1990; Ruggles 1984).

Thus, each unique horizon requires analysis in order to determine when and where the sun rises and sets on the skyline from a particular point of observation (Ingold 1993, 166). Alignments within monuments and the wider landscape, specific to the horizon, can be assessed in correlation with the movement of the sun and moon across the sky at different times of the year. Important phases and cycles generally occur at times of extreme axial tilt, such as the solstices, when the sun lingers at the points of rising and setting, or at lunar standstills at the most extreme northern or southern point of the moon rising and setting (Burl 1980; Ruggles 1984; McCluskey 2000, 17). From Yadlee Stone Circle (see Fig. 9.5), the sun rises directly over Witches Cairn (92° from the stone circle) on a ridge to the east, at the spring and autumn 'equinoxes'. The topography of the horizon moved the point of rising 2° south, and was marked with a cairn. Equally, the point of spring and autumn 'equinox' sun-set is marked by the trough to the west with Rook Law cairn on it, at 270°. Finally the peak of the sun's movement in the sky, directly south, was marked by Spartleton Cairn 182° on Spartleton Hill (Gardner *et al.* 2014, 11). The accuracy of alignments within studies of archaeoastronomy is often a factor which comes into question (Ruggles 1984, 306). One must attempt to assess what level of accuracy would be necessary in order to undertake the given task. If we agree that some prehistoric monuments can and do reference solar movements, but do not 'measure' them, or use any form of calculations, as has been previously stated, then it could be argued that Yadlee evidences a general referencing of solar movements, with a specific nod towards Spring and Autumn. No other more precise 'measurements' seem to have been necessary or possible.

The concept of an 'equinox' is again one which needs clarification at this stage. An 'equinox' is an inherently modern concept, one which it is unreasonable to impose upon the interactions prehistoric communities had with the sky (Ruggles 1997, 45). While the alignments at the 'Yadlee complex' do match with the 'equinox' in a true sense; the 'equinox' as the sun crossing the celestial equator, this would have been impossible for past communities to measure, or even be aware of (Ruggles 1997, 45). We should refrain from thinking of 'equinoctial alignments', as they are very unlikely to have been intentional. However, the potential alignments at Yadlee may indicate construction referencing the movement of the sun at this point, with the three cairns coinciding with the suns rising, peaking, and setting point at a time roughly between the solstices. This is taken by the authors to indicate that the site was constructed, or intended to be used, at a time when the sun was in this position, but not as an 'equinoctial' alignment. These periods would be spring and autumn (LeConte 2008, 502).

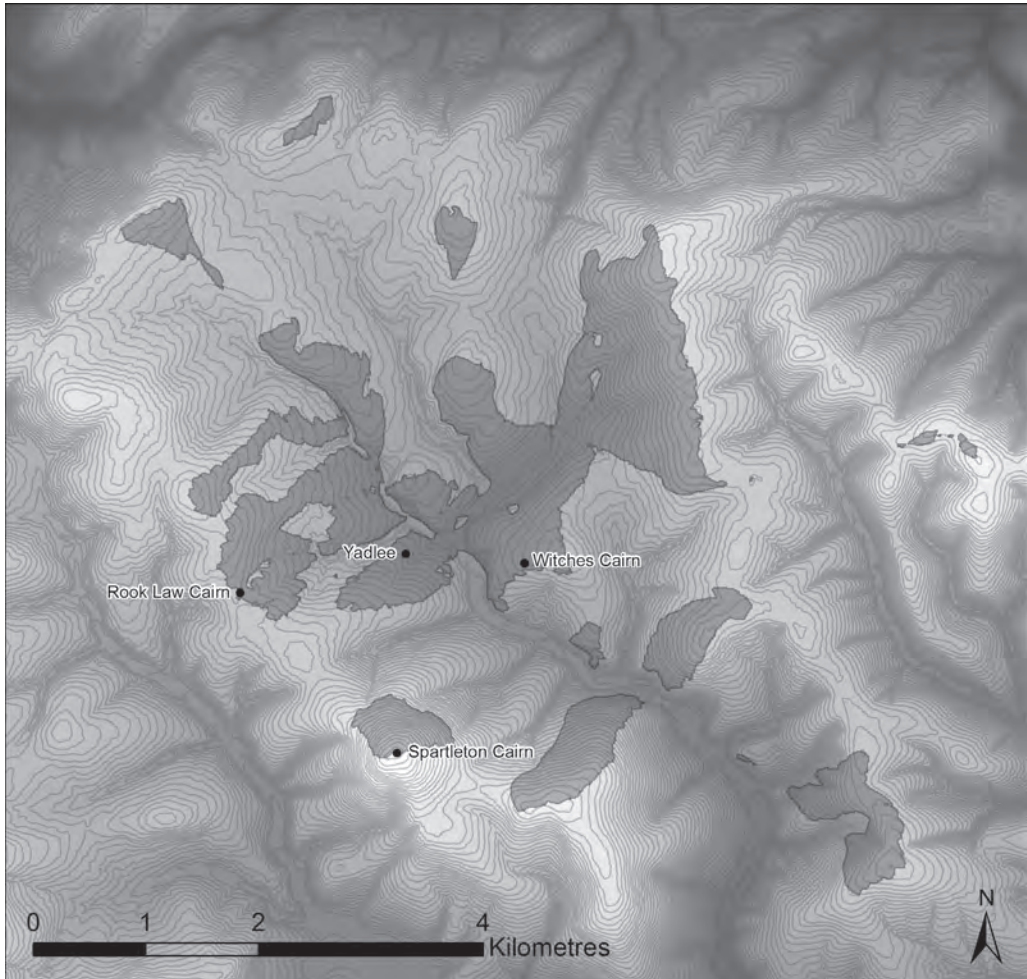


Fig. 9.5: Yadlee landscape, viewshed, and satellite sites (illustration: T. Gardner; map data: ©Crown Copyright/database right 2015. An Ordnance Survey/EDINA supplied service).

Lunar alignments are significant at many prehistoric sites in Britain, such as at Godmanchester (Lloyd 2009, 38). The authors have not ruled out the possibility of lunar alignments at the ‘Yadlee complex’, but equally decided against pursuing this line of research. Due to the time constraints and the complexity of lunar activities compared to solar, the authors chose at an early stage to focus on solar. In addition, the evidence for potential solar alignments on site was apparent.

Interpretation

Survey identified the potential for four sites linked by shared associations with the movement of the sun (Gardner *et al.* 2014, 16). The alignments suggest a relationship

between the monuments and the rising and setting of the spring and autumn sun, marked in its passage through the sky by the three cairns, one each at rising, mid-point, and setting. These associations were taken to have reference to the *time* of building, rather than the intentional alignment to a phenomenon both impossible for early societies to measure, and inherently mathematical in its definition (Ellegard *et al.* 1981, 100; Ruggles 1997, 45). The small size of the dataset and the ambiguity of the alignments mean that this is the most tentative of interpretations, and should be used as a vehicle for discussion, rather than a serious perspective upon prehistoric life.

Site functions

Due to the potential alignment from the stone circle to the three cairns in the landscape indicating that the sun may have been in a central rising position at time of construction, either autumn or spring, the interpretation turned to activities associated with these seasons. Spring and autumn are often seen as transitional periods within the passage of the year, standing respectively between winter and summer, and times when groups may be actively transient within the landscape, moving between territories or areas (Halliday 1993, 74). Transhumance patterns, heavily imbued with modern connotations and references, are too simplistic a methodology to apply to this record, as they enforce a core/periphery effect upon interpretations. Rather, the authors suggest a model where groups are regularly transient within territories which they exact ownership over. These patterns may involve moving into upland areas, either for economic or socio-cultural reasons, and would certainly involve social interactions within, and between groups in transition.

With this in mind, and considering the access routes into the Lammermuir hill-system through the numerous drove roads or north-south riverine cuts which can be seen bisecting the area (Fig. 9.3), it seems likely that people were congregating at, and moving through, the Yadlee basin. River lines are often seen as lines of communication and travel within prehistoric communities, and sometimes relate to stone monuments, such as at Thornborough (Harding *et al.* 2006, 48). It has also been hypothesised that at Thornborough, as maybe at Yadlee, individuals moving seasonally had a close connection with the sky and landscape (Harding *et al.* 2006, 29). While in movement, and especially if moving livestock to pasture, groups may have had more relaxed schedules, enough to incorporate the construction of monuments and markers within the upland landscape. These are tentative thoughts for now, but may account for the accumulation of cairns and stone circles in the Lammermuirs, and the general absence of other standing monument types. Similar interpretations have been applied at sites in Portugal and Spain concerning population movements in transitional seasons (Hoskin 2008, 508–9), and would fit the evidence presented at the ‘Yadlee complex’ without directly using the flawed concept of ‘equinoxes’ or problematic term of transhumance.

It would be easy to fall into the trap of assigning an ambiguous ‘ritual’ interpretation to the site (Burl 1980; Norris 1988; Harding *et al.* 2006, 29). Equally

easy would be using the standard archaeo-geometry interpretation, which implies that individuals and groups in prehistory needed a series of fixed monuments to tell the time, rather than simply looking at where the sun was in the sky, judging the weather trends, or the changing flora of the seasons (Ruggles and Burl 1995, 526; Barber 1996). Prehistoric architecture at small sites simply does not have the precision to identify nuances of individual date and time, its facets being more of a general indicator of a reference to solar movements, rather than a complex series of astronomical observations and calculations (Thom 1967; 1971; MacKie 1977; 1993; Ritchie 1982; 1990).

Why then, could the monuments have been constructed? There seems no need for a group of individuals in spring and autumn to build a monument to reference the movement of the sun. An upland area like the Lammermuirs could be a difficult landscape to navigate, with its high ridges and low valleys, but the authors do not for a second suggest that individuals could not navigate their ways around their own territories without complex signposts. Could the issue then be of congregation? Cairns on peaks, such as Spartleton cairn, would have been directly visible and distinct for large distances. This may have helped groups meet in certain areas, such as the stone circle, at certain times. However again, the authors do not suggest that groups needed significant cairns to congregate, and alignments to tell them what time of year it was. Although the record is ambiguous, what does seem likely is that at some point, either in construction of congregation, individuals and groups met in the landscape, and partook in social activities.

Social interactions

During the construction and subsequent use of the monuments, individuals would have socialised and shared knowledge, expertise, news, and jokes. So what then does the archaeology at Yadlee tell us about people, individuals and groups, and how they interacted? On the surface, not a large amount of concrete data is apparent. For the same reasons that we cannot define a 'ritual' use for the monument complex, it is hard to represent beliefs, thoughts, or ideas through only a structural record. But if one is to take the construction of the complex as representative of group labour, then there must have been social interaction. The nature of social interactions can be difficult to grasp, especially at a large temporal distance, but the cooperative nature of construction gives us a clue to how this may have manifested itself.

Social interaction is present in all species of animals, and is hailed as one of the most important factors in human evolution (Goodson *et al.* 2005, 229; Krause *et al.* 2007, 21; Spikins *et al.* 2010, 304). The individuals constructing the stone circle at Yadlee and moving through the landscape may have known each other prior to this joint venture, but through shared labour and experiences they would have become a group (Skoufias *et al.* 2010, 52). Trying to evaluate the demographic, beliefs, or lifestyles of this potential group is difficult, as the function of the site would allow a degree of context to interpretations. However, we can begin to evaluate the potential benefits of

these interactions. Primarily, the psychological benefits of social networks have long been known, but are often overlooked in archaeological analyses (Smith and Christiakis 2008, 405; Steptoe and Roux 2009, 2). People are generally happier and healthier when acting with, or belonging to, a social network (Fowler *et al.* 2009, 23). Even the most short-lived of interactions provide shared experiences, which individuals can use to define themselves and form groups. Belief works in the same way; those with shared beliefs and experiences can connect with others despite never having met them before (Milroy and Margrain 1980, 46; Anderson 1983). Shared experiences create networks, which are fundamental in human behaviourism (Schiffer 1999, 166) and cultural development (Yeung 2005, 392).

If we extrapolate from the tentative interpretation that Yadlee was set in a landscape with transient populations, then the benefits of socialisation becomes immediately apparent. Transience may have been quite a solitary lifestyle, especially with small groups in a remote area. The construction of Yadlee may have facilitated the meeting and socialisation of isolated groups throughout the year; the alignments suggesting spring and autumn. Subsequent use of the site or landscape would have allowed groups to exchange news and socialise. The cairns within the landscape may have directed people towards a social node, but again the authors do not pretend that groups did not know their way through a familiar landscape.

The impact of these varying types of socialisation would depend upon the wider cultural setting of the activity, which is difficult to ascertain. It may well have been sociological, potentially involving the creation of class hierarchies, social stratification, the sharing or hoarding of knowledge, the role of beliefs or religions, politics, gender issues, individualism, social mobility, or social economy. Although simply illustrating the potential impacts which social networks can have upon a demography on a local or regional scale, possibilities such as these cannot be ruled out, and should constitute part of an archaeologist's interpretative toolbox (Cochran and Brassard 1979, 601; Parks *et al.* 1983, 116).

The construction and use of this landscape may have unified a group in the same sense that individuals conducting an archaeological excavation or survey become drawn together by the drama and symbiosis of shared experiences and interests, and are then defined as such even by others outside that group. For example, the five individuals who participated in the investigation and survey of Yadlee itself, are still known in some circles as the 'Yadlee boys', despite the fact that they are now scattered across the world between Scotland, England, Greece, and Canada. The shared experiences and social interactions which took place in the survey of Yadlee can be seen as comparable to those which took place during its construction. They defined a group, albeit probably with different purpose and demographic. In the same sense that the monuments preserved at Yadlee may be the congealed form of social interaction, the composition of this article, available on paper rather than set in stone, is the congealed form of the authors' activities and the social interactions they necessitated and created.

Taskscapes at Yadlee

Despite the lack of definitive evidence present at Yadlee, this site provides a useful vehicle for a discussion of taskscape theory and its application within an analytical framework. Especially when considering archaeoastronomy, there are certain areas of taskscape theory which need addressing in order to develop a refined approach. These include issues of topography, horizons, landscapes, skyscapes, and the definitions of taskscapes.

Topography and horizons

The individual topography of the horizon, as observed from a specific point, can change the rising and setting points of the sun on that horizon by several degrees (Ruggles 1984). A horizon is a unique aspect of the landscape, as it varies widely depending on where it is observed from. Ingold touches upon this in his analysis of the 'Harvesters', in a passage on hills and valleys (Ingold 1993, 166). An interpretation of topography is subjective, where features such as hills and valleys have uncertain definitions; the hill being defined by the base of its slopes, the valley floor, and the valley being defined as the limits of its depth, the hilltop. The appreciation of topography changes depending on the point of observation. The same applies to the horizon, which limits the visibility and defines the boundaries within the taskscape under scrutiny (Ingold 2010, 122). The horizon changes depending upon where it is observed from, and therefore is not a concrete boundary, but liminal space within the landscape (Ingold 2010, 126). It is made fluid through the motion of the observer, and only consolidated by observation from a static and consistent point, such as a monument. Thus, we cannot say that the horizon acts as a boundary within the landscape, as it is the landscape, just as perceived from one point. Yadlee Stone Circle marks a point made static, for the fixed position of the observer. The horizon can be essentially consolidated from this point. This is the boundary within which the taskscape can be directly active. The same can be said of the cairns situated upon that horizon. These are invisible from other points within the landscape, as they sit only upon the horizon as viewed from Yadlee Stone Circle. The cairns could be seen as consolidating the skyline from that particular point of observation, making it permanent for the observer (Ingold 1993, 133).

Taskscapes act within pre-determined boundaries and parameters; some spatial, others temporal, cognitive, or technological (Ingold 1993, 154). It could be argued that Yadlee has boundaries and parameters which are defined by the interaction between topography and archaeology on the horizon. Until now this assessment of taskscapes has been considering only terrestrial boundaries which, when dealing with archaeoastronomy, is naïve.

Can we have a skyscape?

The idea of skyscapes is appealing, especially where it could help shed light upon potential functions and interactions at Yadlee. Just as landscapes are in constant flux,

the sky is altered by similar forces, such as the exploding of stars, consumption of black holes, and the forming of galaxies. However, these forces act upon such a vastly long period of time, that even the light reaching earth from these events and forces can be light years away, and millennia old. Thus, although the sky is undergoing modification, these large scale changes are divorced from any form of human conception, and are only just starting to be understood.

Despite this, to the prehistoric individual the tapestry of the sky could seem dynamic. The changing of the earth's axial tilt, the lengthening and shortening of days, and the fall of night and rise of morning are all relevant and perceptible to the observer (Ingold 2006, 15). In the short term the sky changes with day and night. Effects in the atmosphere can cause considerable alterations of the sky; clouds, rain, sun, thunder, lightning, and changes of density in gases all impact heavily upon the visual appearance of the sky (Ingold 2006, 17; 2005, 97). Equally lights, fires, and pollution can impact upon this perception from the ground (Gibson 1979). Many of these shifts are uniform due to the short time scale in which humans perceive this change, but others are unpredictable, making the sky a dynamic area of activity and perpetual change. Although the sky remains physically unreachable to the prehistoric individual, birds must have been seen to travel between the earth and the sky, and so prehistoric individuals could conceivably know that the sky can be traversed and visited (Ingold 2006, 18; 2008, 1799; Lewis-Williams 2010). Physically however, they cannot reach it. Thus, because landscape is the physical modification of varying forces upon land, there cannot, by definition, be a physical skyscape; it is unmodifiable.

However, there is a case for a *cognitive* skyscape. Individuals and groups may have projected beliefs and ideas onto the sky and its formations of stars, moons, and the sun. Although this is very difficult to observe directly in the archaeological record, it can be suggested that those constructing and using the Yadlee landscape, and other stone circle sites across the region, believed that the movement of the sun had some relevance to their lives (Gardner *et al.* 2014, 11). A cognitive skyscape would involve projection onto the sky, during day, night, dusk, or dawn, of beliefs and ideas within the imagination of individuals and groups. The sky cannot be modified physically by individuals, yet a cognitive skyscape would, in the mind of the individual, be real and physical.

By looking at the horizon, we can see a liminal space where the sky and the land interact. If the horizon at this point has been modified, for example by the construction of cairns, then it is the *landscape* which is interacting with the sky. At Yadlee, the horizon has been fixed for the observer by the particular configuration and combination of monuments. As well as consolidating the horizon, the cairns project upwards, extending the landscape into the sky. This visual imprint on the sky, although only apparent directly from Yadlee Stone Circle, interacts with, and modifies, the sky (Ingold 2006, 17). In a removed sense this is a physical modification of the sky (Ingold 2006, 11; 2010, 122). This, combined with the potential for a group's undetectable cognitive imprint on the sky, could be the skyscape.

The sky appears to be interacting with the landscape at Yadlee, but it is not easily recognizable, and a distortion of the definitions of taskscapes and landscapes is necessary to legitimise it. A taskscape projected upwards potentially laden with cognitive implications (Gibson 1979) and only detectable where the two zones connect, on a modified and concreted horizon (Ingold 2006, 18). This could be an extension of the landscape into the skyscape, defined by the shared function of the taskscape.

Conclusions

This paper began as Ingold finished (1993, 172), by attempting to translate taskscape theory into practice. This highlighted monuments within a landscape bowl which may have relation to each other, and limited the scope of the study to a localised area as defined by the visible area surrounding Yadlee Stone Circle. The alignments potentially apparent within the landscape may have referenced the rising, peaking, and setting of the sun at the 'equinox', but due to the inherent issues with 'equinoctial' alignments the authors' suggested that the site may have been built during either spring or autumn. The potential alignments were too vague to support a more sophisticated interpretation, and do not fit into any regional model. The dataset is too small for grand interpretations of belief systems, 'rituals', or much ground-breaking new thought pertaining to prehistoric life. Any wider discussion on the interconnectedness of stone circles and related monuments with skyscapes would require a regional survey of sites. The landscape was thus used as a vehicle for discussion on the social implications of sites within an upland transient landscape, rather than as a serious interpretation of prehistoric life.

The authors discussed the significance of social networks within taskscapes. Psychologically, the formation of a social network is of large benefit to individuals and groups, creating an identity, support, and a forum for discussion of shared belief and experiences (Adams 1967, 69; Parks *et al.* 1983, 126). All human activity is dependent upon social interactions. An analysis of a taskscape should always include an analysis of the social networks which it creates, as this is the taskscape. Even as an unintentional by-product of any activity, social networks can often be argued to be the most significant outcome. When considering transience throughout an upland landscape in spring or autumn as a potential setting, an understanding of social networks becomes even more interesting. The potential for solitary groups and individuals to meet and bond in the construction and use of a monument like Yadlee has significant ramifications for understanding how transient communities worked.

Due to the importance of the sky in the positioning and morphology of the archaeology at Yadlee, discussion moved to the potential for a 'skyscape', to balance the landscape as a modified canvas for taskscapes to be projected upon. Because of the unmodifiable nature of the sky, it can serve only as a tapestry for beliefs and ideas, modified only in the mind and imagination of the beholder, and unrepresented in the archaeological record. The only evidence of prehistoric interest with the sky is when aspects of the landscape interact visually with the sky, which at Yadlee involved the

imposition of cairns upon the visible horizon. The sky, by proxy, is brought into the landscape through association with the horizon. While more of a theoretical point than a practical one, this may support the interpretation concerning transient groups acting in a social arena.

Despite the limited possible interpretation of Yadlee Stone Circle, it has been possible to conduct a theoretical exercise considering social interactions and taskscape theory when concerning transient groups acting around a monument potentially for astronomical references. Further excavation and survey would be necessary to unpick a secure narrative for the landscape. However, this dialogue has been useful. It has highlighted that the analysis of a taskscape and its social implications allow us to connect with the individual, albeit at a distance. This is the true value of taskscape theory; taskscapes are social, and thus essential to a comprehensive analysis of the past. This becomes all the more relevant when considering transient groups, who may have relied upon congregation, dispersal, social interaction, and group experiences.

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Chapter 10

Diachronic powerscapes: a case study from Odda, Norway

Anne Drageset

Introduction

The past's relationship to the landscape has unmistakably been involved with its power structures. Building on Michel Foucault's (1986, 252) notion that 'space is fundamental in any exercise of power', the present paper will explore variations in power structures and social relations in the landscape. The text shifts between two temporal and social contexts, namely the Early Iron Age and a 20th century industrial community. The questions motivating my research are: What significance did the landscape play when constructing an Early Iron Age barrow? Could some of the same features be said to have been exploited also in more recent times? I will focus my attention on one specific site named Eide, located in the town of Odda in the Hardanger region, western Norway (Fig. 10.1). This site offers a particularly well-suited case for illuminating these questions, which may in turn be transferred and explored in other landscapes.

Tim Ingold (1993) and his introduction of the *taskscape* perspective have made a profound theoretical contribution to archaeological landscape studies. His idea recognises the importance of the temporal aspect when interpreting landscapes. Further, meaning is gathered from the landscape through our own active engagement within it. With regard to people's perception of landscape, Maarten Jacobs's (2006, 191–241) *Comprehensive Theory of Landscape Experience* provides a framework for analysing the site. This theory integrates the applied theories of several separate approaches concerning the way people experience landscape. Jacobs contends that landscape experiences are produced by individual subjects, by mental concepts and emotional appraisal mechanisms, as well as stimuli from the physical surroundings. As a starting point for his comprehensive theory, Jacobs distinguishes three phenomena of landscape which are epistemologically different, referred to as the *tripartite landscape theory*. Each of the three phenomena denotes a separate category of reality: physical reality (matterscape), social reality (powerscape) and inner reality (mindscape). This

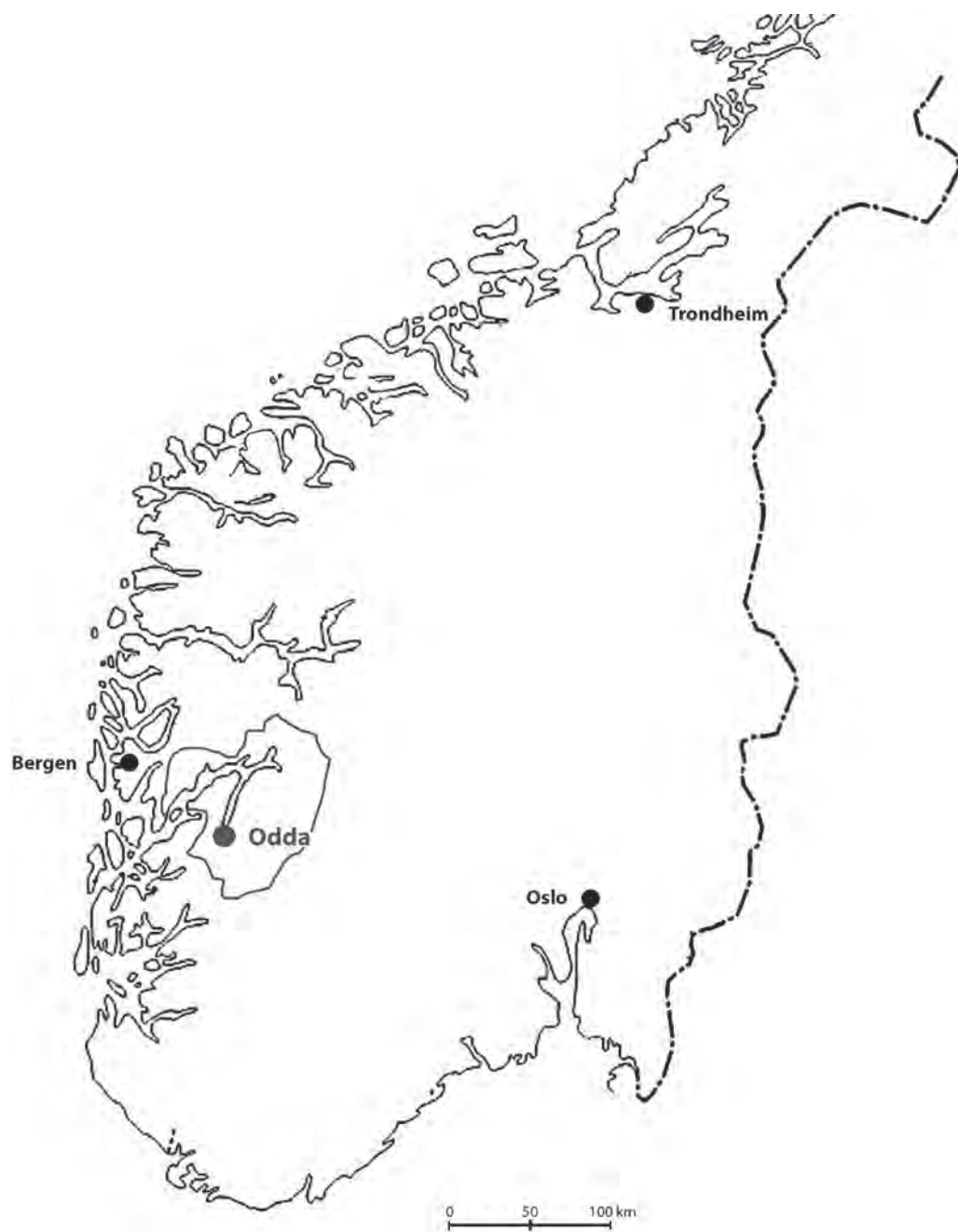


Fig. 10.1: The Hardanger region and Odda's location in Norway (illustration: Anne Drageset).

division has proven to be advantageous when discussing the possible link between the landscape and its influence on social groups.

Odda's local history – the backdrop

Hardanger as a region comprises distinct topographical characteristics. It can be described as a classic fjord-landscape with steep mountains, valleys and waterfalls, all centred around and bound together by the Hardanger Fjord. The spectacular landscape has helped to turn Hardanger into what is seen as the very essence of the Norwegian National Romantic scenery. At the innermost part of one of the fjord's branches, *Sørfjorden*, the small town of Odda is found (Fig. 10.2). The natural conditions limit the possible settlement areas in Odda to the valley floor, and to a labour-intensive strip of arable land in the hillsides.

Since closing down in 2003, Odda has been in the midst of a heated dispute about whether to preserve its industrial ruins and acquire a place on UNESCO's world heritage list as a post-industrial site. Today, the debate has abated somewhat, but its development is still critically examined by the project *From Industrial Ruins to Cultural Heritage. New Heritageizations in the Hardanger Region, Norway*, carried out by the research group *Places – Regions – Identity* at the University of Bergen (see Barndon 2013 and Ågotnes *et al.* 2014).

In the late 19th century, however, Odda was still a rural farming community, with a prospering tourism industry due to its magnificent scenery. It was actually one of the most exotic and popular travel destinations in Europe around the time. People came to visit the adjacent glacier Folgefonna, and to view the mountains and majestic waterfalls (Barndon 2013; Selberg 2014, 83).

On the other hand, these waterfalls also provided an enormous potential for harnessing hydroelectric power. Hydropower formed the basis for industrial development and gave rise to a new era in Hardanger. The company that would later be established under the name *Odda Smelteverk A/S* (Odda Smelting Plant) started its preparations for manufacturing calcium carbide in 1906, and quickly turned Odda into a busy town based around this cornerstone company (Andersen and Haug 1989). Tourism ceased as the waterfalls were exploited for energy, and smoke from the furnace covered the village and fjord. Through an immense construction process, Odda was rapidly transformed. The industrial process claimed the best farmland, and along with it, an untold number of archaeological remains (Engevik 2011, 30). Efforts to provide dwellings for resident workers started almost immediately. The factory staff, both workers and officials, desperately needed a place to live.

In 1907, the task of building a residence for the director of the factory was in full swing. Eide in Odda was the chosen location for the large wooden dragon-style villa and complementary garden (Fig. 3). During the construction of the director's villa, later known as *Brucevillaen* (the Brucevilla), after director Frantz W. Bruce (Røyrane



Fig. 10.2: Detailed map of the study area. Circle marks the site at Eide (illustration: Anne Drageset).



Fig. 10.3: Old postcard scene with The Brucevilla behind the River Opo (photo: Norsk Vasskraft- og industristadmuseum).

2011, 107), a barrow was swept away. In the course of this groundwork some artefacts from the Early Iron Age appeared.

The weapon grave

The artefacts deriving from the barrow are made up of a severely corroded spear head, originally reported to be 75–80 cm long, and the tip of a barbed javelin (museum number B7675; Fig. 10.4). In 1925 the remnants of the discovery were offered to the museum in Bergen by a private individual. The same mound was later reported to have contained a sword and an axe as well (Bakka 1963, 116), though this cannot be verified.

The fragmentary state of the artefacts hampers typological dating, but the leaf-shaped spear head with a central spine, in combination with the javelin, nevertheless allows the find to be dated to the Roman Period, most probably sometime around AD 150–250 (*cf.* Ilkjær 1990, type 13). The javelin's function as the foremost missile weapon was to decimate the enemy at a distance, while the spear operated as the main close-combat weapon during the Early Iron Age in Norway. Axes form part of the weapon set mainly from the early 6th century AD, so whether the reports of the missing sword and axe are accurate or not, these are doubtfully part of the same burial.

Several hundred burial mounds and cairns are known from the Iron Age (500 BC–AD 1050) in the Hardanger region. Some are still present in their original location, others



Fig. 10.4: Spear and javelin found at Eide. Reconstructed according to interpretation (photo: Anne Drageset).

excavated professionally or removed without any systematic investigation. Prehistoric graves in the region are primarily located in the lower-lying villages oriented towards the Hardanger Fjord. These are single burials that dot the landscape, but there are also large numbers of barrows and cairns that have been assembled in cemeteries. Currently, we know very few burials from the first 500 years of the Iron Age (500 BC–AD 1) in the region. This is unsurprising, as burials dating from the Pre-Roman Iron Age are rare in this part of Norway, perhaps due to the dominant mortuary custom at the time: cremations in poorly equipped flat graves without any visible marking. This makes the weapon grave at Eide one of the earliest known Iron-Age burials in Hardanger.

The private donor notes that the find was made about one metre below the ground. Beyond that, there are no further details on how the Eide barrow was constructed, or on the mortuary custom. The burial rites during the Roman Period were heterogeneous. There are several variances in external construction, internal features as well as treatment of the human body. Inhumations were (re)introduced and cremations and inhumations co-occur. Still, some patterns can be discerned when looking at *weapon burials* from the late Roman Period in western Norway. These are predominantly inhumations and poorly furnished except for the weapons (Stylegar 2011, 225). With regard to the iron weapons from the Eide mound, there is nothing to suggest that they were burned at the pyre (Bakka 1963, 116). Weapons in cremation graves are generally bent or otherwise ritually destroyed (Stylegar 2011, 220), and that does not appear to be the case here. Thus, by all accounts, the deceased at Eide was laid to rest at an unburned interment.

The topographical archive at the University Museum of Bergen provides information about another Roman Period barrow from the vicinity. A bucket-shaped pot and a pair of iron scissors were recovered. Unfortunately, insufficient evidence prevents us from ascertaining the location of the actual barrow. Yet a third barrow at Eide, recorded in the archive, is said to have included a sword, spear and axe. These artefacts are lost today, so are any details with reference to location.

Eide – topography and toponymy

Eide (farm number 53) is located on the southern edge of Odda, approximately 90 m above sea level on a large sand terrace. Directly east of Eide we find the inlet mouth of the short River Opo which falls from Lake Sandvin down to Sørfjorden in the north. Eideshovden is an approximately 40-metre-high end moraine at the north end of Lake Sandvin which marks the boundary between the Eide terrace and the lake. Lake Sandvin itself is about 4.8 km long and has a surface area of 4.3 km². It is surrounded by steep mountains on both sides, and the present national road 13 has been blasted out on the eastern side. To the west of the lake, it is possible to make the journey through Buardalen valley and finally reach the Buarbreen glacier. The *Hardangervidda* Plateau, with its vast open mountain areas at an average elevation of about 1100 m, is accessible through the valleys Sjausetedalen and Hildalsdalen in the east. From the southern tip of the lake, one can follow the narrow valley to Røldal (Fig. 10.5) on to eastern Norway.

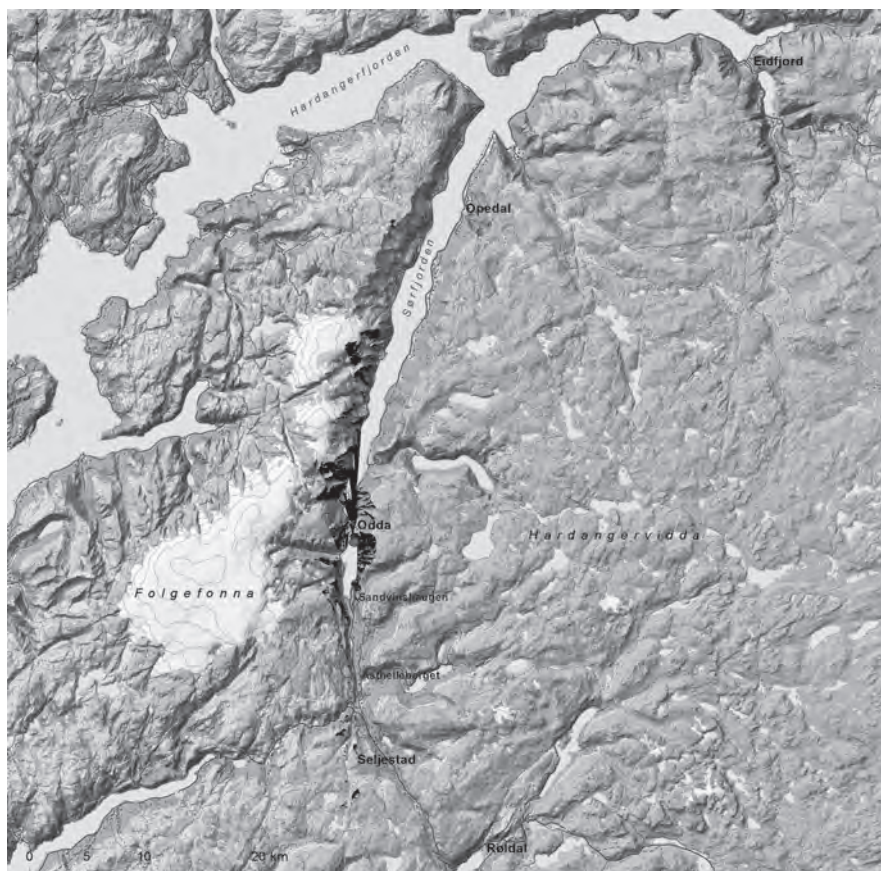


Fig. 10.5: Viewshed visualisation. Black fields are visible from the site (marked with circle) (illustration: Anne Drageset).

The name Eide is the singular dative of Eid, which can be translated to isthmus. The name is derived from the landform and refers to the strip of land separating Lake Sandvin from the fjord (Rygh 1897–1936). Eid is the origin of a variety of farm and place names in western Norway, where the natural conditions are similar. In many of these places, Eide is held to be the oldest name and the oldest farm unit (Sognnes 1977, 115).

Visibility analysis

In the Hardanger region, barrows are usually found at locations where they are visible from, or have a view over, their surroundings. The Hardanger Fjord is a widely visually exposed feature. Modern buildings have completely changed the landscape at Eide, and it is impossible to determine by personal observation alone which areas would have been visible from the Early Iron Age barrow and The Brucevilla. For the purpose of visualising which areas can be seen from the site, a single viewshed analysis was carried out.

The analysis was performed in ESRI's ArcGIS 10.2.2, by employing a raster Digital Elevation Model map, provided by Kartverket (The Norwegian Mapping Authority). The height value of each cell with a resolution of 10×10 m was used to determine the visibility from a specific viewpoint. The height of observer was kept at the default 1 m, which resonates with the approximate height of barrows in the region. The result of the analysis illustrates which areas would be in and out of sight 360° from the site at Eide if buildings and vegetation were stripped away.

There is a variety of source-critical problems using viewshed as a methodological tool, such as the impact of vegetation on visibility and an overemphasis on the sense of sight. These issues, and more, have been addressed by archaeologists David Wheatley and Mark Gillings (2000). James Connolly and Mark Lake (2006, 228–33) have since distinguished between, and discussed, computational, experimental, substantive and theoretical issues in working with viewshed as an archaeological method. An important consideration to take into account is the fact that the visibility result is not necessarily reciprocal. Due to height differences, the areas that are visible from the barrow may not have visual access to the barrow in return. A potential concern raised by the current investigation is the uncertainty about where exactly on the property the barrow was located before it was removed.

Ten possible locations within a 90 m radius of the final viewpoint were analysed. Upon experimentation, it became evident that the results varied minimally between the various analyses. The final viewpoint was set at the spot where the Brucevilla later stood. All the analysis results revealed a clear uninterrupted view over the flat land that constitutes the town centre of modern Odda, and further out over the Hardanger Fjord (Figs 10.5 and 10.6). Eideshovden restricts visibility southwards, and Lake Sandvin is hidden from the site. Eastwards the view is dominated by the nearby, steep mountainside. In order to test the outcome, five viewsheds from the fjord were



Fig. 10.6: View of Odda and Sørfjorden from c. 1890–1900 (photo: Library of Congress).

generated. This reversed viewshed shows that from all the control observer points, the barrow falls within the field of view.

Notions of the local Iron Age landscape

Farm settlement and outfield resources

We have limited knowledge about the nexus between contemporary settlement and the barrow at Eide. The area was left relatively undisturbed until after World War II, but is fully developed today, so the chances of uncovering prehistoric settlements here are limited. It is however believed that Eide in Odda is the oldest farm on the western side of the River Opo (Kolltveit 1964, 94). The possibility that there was a farm settlement here as early as the Roman period is strengthened by the presence of the barrow. Burials were commonly placed near the old farmstead, and are seen as a sign that the farm was already settled at the time the deceased was put in the ground. However, Norwegian Early Iron Age burials are also found along thoroughfares on land and waterways.

People's life unfolded in an agricultural society, organised as individual farms or hamlets. In large parts of southern Scandinavia, the farm's main building was

constructed as a three-aisled longhouse. The house was divided into living space for the residents and a byre where livestock were kept during the winter. The main economic support was land cultivation and stockholding, where each farm produced according to its needs. Gradually, however, there was a growing desire to produce a surplus. Throughout the Early Iron Age, there was an increase in agricultural expansion, as well as extended use of the outfield.

There can be no doubt that the Hardangervidda Plateau has provided substantial resources for the inhabitants of the Hardanger region over a very long, and probably continuous, period. Settlements along the fjord cannot be seen in isolation from the activities that took place here. The distances are relatively short and the Hardangervidda represented an accessible resource for outfield exploitation. The first evidence of human settlements on this mountain plateau date back to the Mesolithic. Lost and recovered hunting arrows testify to wild reindeer-hunting in the area, as do the remains of Iron Age stone-built trapping pits and bow rests, which commonly occur over large parts of the Hardangervidda (Indrelid 2005, 162). From the Pre-Roman Iron Age onwards, countless traces of iron production have been found in the ecological border zones around the plateau (Indrelid 2005, 162; Johansen 1973), for instance in the mountain valleys near Seljestad, approximately 15 km south-east of Lake Sandvin. In these valleys, clusters of several charcoal pits, along with bloomeries and piles of slag, are still visible today. This also applies to numerous abandoned shielings in the mountain valleys Sjausetedalen and Hildalsdalen. The age of these is uncertain, and some may date back to prehistory.

The growth of a new social structure

In the course of the Roman period in Scandinavia, there is a tendency towards greater social inequality, seemingly as a result of contact with the Roman Empire (Lund Hansen 1987). Agricultural expansion and settlement organisation provide evidence of increasingly strong ownership of land and animals. Moreover, there is a professionalisation and a new structural hierarchy within the military organisation during the Roman Period. Social differences are most noticeable through changes in burial practices and especially in imported grave goods. These included prestigious bronze vessels, glass beakers, glass beads, coins and gold objects (Lund Hansen 1987; Myhre 2003, 69). Interpreted in the light of these changes, the Early Iron Age gradually saw the rise of a stratified society.

The emergence of this new social and political system increased in pace with surplus production and commodity exchange. Around this time, society was organised in chiefdoms, probably as small local political structures (Hedeager 1990). When contacts with the Roman Empire were established, these local leaders saw the chance to enhance their power and status. Early Iron Age agrarian society was self-sufficient and did not need a supply of vital goods (Thomsen *et al.* 1993, 96). The purpose of imported luxury items was to promote status and enable the elite to consolidate its position.

A trade network based on outfield resources was established during the Early Roman period (Solberg 2003, 111), demonstrated locally by a weapon grave from Opedal further north along Sør fjorden, where a Roman bronze cauldron was deposited as a grave urn. Control over iron and hunting products has been considered pivotal in generating economic profit and power. All goods sent out to the Roman Empire or southern Scandinavia had to be passed from inland regions and then along the coast (Solberg 2003, 108; cf. Slomann 1959, 43). Naturally, securing a base along the shipping lanes would have been of great interest.

In our region, the main travel route to the coast has been along the Hardanger Fjord. Utility goods in the form of iron, furs and skins, reindeer antlers along with other valuable goods, such as rock crystals (pure quartz) for jewellery making, obtained from the western part of the Hardangervidda Plateau and its border zones, had to be transported down through the valleys to reach the fjord. Eide was located along the thoroughfare from several parts of the surrounding mountains. Consequently, one would have travelled across Lake Sandvin, via Eide down to Sør fjorden. Topographically, the only imaginable route to and from the fjord is along the river valley. Rowing boats were the only likely form of transportation along Lake Sandvin in prehistoric times. The River Opo, on the other hand, is unsuitable for boat travel. It is rocky and shallow, so boats would have to be left behind at the lake. Here the terrain narrows the passageway down to less than 200 m wide, including the river.

It is unlikely that the local leaders based on Eide organised outfield exploitation and trading operations, from the mountains to the coast, alone without regional cooperation allies. Smaller political units may have been a part of a much more extensive contact network and alliance system in operation over larger geographic areas (Myhre 2002, 167). Goods that were requested in the provincial Roman areas must have been distributed through these overarching networks.

Mobility lines and access

Iron Age burials represent traces of how mortuary ideology and religious expressions in the past have led to physical changes in the landscape. However, large barrows have for a long time been regarded not only as a prehistoric trace of religious expression, but also as a display of wealth and power. Landscapes can be seen as features that exert subtle power over people, eliciting emotions and meanings that may be indeterminate (Mitchell 2002, vii). Landscapes linking the living with the dead may have had just as much to do with expressing identity, personal and political power as with belief systems and religious ideologies (Ashmore 2004, 264–5; Semple 2003). An isolated burial like the barrow at Eide, clearly visible, presumably served as a prominent marker of territory.

Today, the site is located along one of the main communication lines between western and eastern Norway. Travelling by car from Bergen to Oslo, one will pass just a few metres from the spot where the barrow once stood. Across the Hardangervidda there is a myriad of old trackways, some leading to points of interest in the

mountain, others to rural settlements in the lowland. The three main trackways (*Nordmannsslepene*) led from Eidfjord over to eastern Norway (Fønnebo 1988). Yet, in the winter snow, only the southern route via Røldal would be passable. This puts the barrow site at the hub of traffic and communication between western and eastern Norway in the Iron Age as well as today.

Eide can be topographically compared to another 'Eid' in the region: Hereid/Lægreid in Eidfjord (Fig. 10.5). Here another terrace, also located at the innermost part of a fjord branch, separates the fjord from a lake, similar in size to Lake Sandvin. On the Hereid-terrace, about 400 burial cairns are preserved, which makes this one of the largest Iron-Age cemeteries in Norway. The majority of the dated cairns originate from the Merovingian and Viking Period, but some cairns are from the Early Iron Age. Correspondingly to Eide, the Hereid burial site also has a favourable location with regard to the communication lines eastward, particularly in relation to *Nordmannsslepene*. In several of the valleys where the trackways descend in the east, there are Iron Age burials, materially demonstrating the importance of wayfaring and mobility.

Territorial control

The Eide barrow furnished with weapons demonstrates the strong military ideology which characterised Early Iron Age society. The possibility for acquiring wealth and territory motivated wars and attacks. Local leaders gained control over the settled areas, its resource management and production. In addition, organisation of the exchange of goods was another way of enrichment. Their position, however, was not left unrivalled. Political conditions in Scandinavia were almost certainly unstable with shifting alliances and struggles for power between the aristocratic families. Expansionary and conflicting groups probably fought violently for the opportunity to control people and resources in adjacent territories (Myhre 2003, 76–7).

At the opposite end of Lake Sandvin there is a hill fort tentatively dated to the Early Iron Age. It is situated on *Sandvinshaugen* (Fig. 10.7), a high and narrow ridge, and reaching it from the foot of the ridge requires a hike of about 20 minutes. It has precipices to the west, north and east. This makes the hill fort difficult to climb and thus easier to defend. At the ridge's narrowest spot there are remnants of a stone wall which may have served as the foundation for a wooden palisade (Bakka 1963, 155). People could take cover behind the palisade and at the same time be positioned higher than the attacking group. These contrasting positions gave the defence an advantage since their missile weapons would have a greater range and power than those of the attackers (Skre 2005, 71). A surface waterhole at this particular hill fort served as a freshwater source (Bakka 1963, 155). There is yet another hill fort, *Åsthelleberget*, located 6 km further south of Sandvinshaugen. Both are found along the old travel route.

The current examination has substantiated that visibility was a decisive factor when building the barrow at Eide. It is clear that the mound was directed at the fjord



Fig. 10.7: South-facing remnants of the c. 8 m long stone wall at Sandvinshaugen (photo: Jan Berge 2015).

and the flat lowland in front of it, instead of the nearby lake. Had the latter been advantageous, the mound would be placed on Eideshovden at a higher elevation. A viewshed analysis with this ridge as an observation point was conducted as well. It was found that practically the entire lake can be seen from here, while the fjord is hidden.

The barrow seems to have been erected by dominant locals who had established themselves where the traffic routes from eastern Norway and Hardangervidda join the head of Sørfjorden. This group would have controlled the area including Lake Sandvin, since the barrow was meant to be observed by people arriving from the fjord. The geographical location on the edge of the Eide terrace is monumental, and undeniably a strategic one. Through the ability to control an important spot along the transport and communication line, power was manifested in this landscape. Consequently, there is evidence that shows fierce contention over this area during the Early Iron Age. The hill fort, Sandvinshaugen, signal visibly that the area possessed assets worth protecting. Furthermore, the spear and javelin from Eide reveal that military force may have been necessary to do so.

Settlement pattern during the industrial years

Unexpected actions in a place, for instance the establishment of a factory such as the Odda smelting plant, can lead to major consequences quite rapidly. As commented by Castells (2000), events like these can radically change the landscape of entire regions, as new infrastructure and housing develops and expands.

The critical need for housing was ever-present during the years that Odda's smelting plant was in operation. For years, virtually every corner in every house was packed with people, and up to 36 children could live in a conventional worker's house. Some had to resort to a life in crowded barracks (Røyrane 2011, 88). Social stratification played a constant role in the community. At the core of the tensions were the relations between the functionary and the factory worker. Job assignment and work attire reflected the class to which one belonged, and it became crucial to distance oneself from the opposite group. Today, elderly people from Odda can still point out invisible boundaries over which they would never step. People describe how they would rather make detours than find themselves in off-limits areas, which belonged to 'the others' (Skagen 1996, 58–9).

Living conditions between the white-collar functionaries and the industrial workers contrasted greatly. House and street name clearly stated people's socioeconomic status. The uneven settlement pattern revealed itself in the director's residence, and other official residences occupying the most desirable places in Odda. Although the outer shape of workers' and functionaries' homes sometimes resembled each other, the functionaries lived much more spaciouly in well-equipped homes, and with appreciably better views (Røyrane 2011, 89). These houses were built high up on the ridges, while the simple workers' housing was found at the bottom of the plain, close to the factory (Jårvik 2008, 73). The Brucevilla's location proves to be the prime example of this (Fig. 10.8). The grand residence was visible from the valley floor where it towered over the factory and workers' housing. High up in the terrain, the villa provided space and peace, shielded from the factory smoke, the poverty and social problems that marked people's lives below. This disparity created a social gap between people, but also separated streets and local areas.

With time, however, The Brucevilla came to be perceived as old-fashioned. Although the villa was renovated by a later director of the smelting plant, the succeeding director refused to stay in the house. The board of the smelting plant decided to demolish The Brucevilla, and did so in 1963. The site was then reused for new employee-housing (Røyrane 2011, 107). The terraced houses which were subsequently constructed still stand at the site.

A strong working-class movement characterised the political climate in Odda for many years. The constant power struggle and increased focus on the needs of the industrial workers gradually shifted power to the public. The working class staked their claim, neutralising the bourgeoisie's control over the community. This transfer of power was reflected in the demolition of the director's villa, and immediate attention to the lack of housing for the employees.



Fig. 10.8: The Brucevella in the centre of the photo overlooking workers' housing c. 1910–1912 (photo: Norsk Vasskraft- og industristadmuseum).

Understanding the powerscape

In Jacobs' (2006) tripartite theory powerscape, *i.e.* the landscape in social reality, is connected to a system of explicit norms and objectives that regulate a group's behaviour. These rules are expressions of power in the landscape and can be manifested in laws and regulations, but also in customs and tradition. Often the social reality related to landscape has to do with spatial intervention. In Jacobs' (2006, 9) own words: 'Powerscape is a system of norms that regulate how members of a particular society are required to behave with respect to the landscape'.

The site at Eide expressed such a powerscape. The story about Eide in Odda is a story of how the landscape was used to mark territory, raise status and enhance power and prestige.

Jacobs' idea of landscape perception is not universal or based on innate preferences. This involves drawing conclusions about mindscape, the inner reality, the landscape as people subjectively experience it, from matterscape, the physical elements that we can see or quantify. Physical features alone do not determine the way people perceive landscape. Emotional components and mental concepts are also key factors that influence landscape experience, making it subjective and individual (Jacobs 2006, 230). Matterscape, powerscape and mindscape cannot be the same, as they are perceived to belong to different ontological categories (Jacobs 2006, 16, 234–5).

Archaeologist Paul S. C. Taçon (1999, 34, 36–7) refers to particular landscape features that evoke common feelings in humans irrespective of one's cultural background. Among these feelings are awe, power, majestic beauty, respect and enrichment. This phenomenon seems to be common in areas where ethnographic sources are available. Among the generic landscape features Taçon highlights are places with panoramic views or large vistas of interesting and varied landscape attributes. These are places that enhance people's ideas about the sacred.

This calls for an adjustment of Jacobs's theory. The idea that there are certain qualities inherent in the landscape itself that makes it meaningful to all people independent of space and time can be dismissed on the basis of Jacob's ideas. Still, there are commonalities to be found across cultures. The human pre-disposition to react emotionally to certain categories of matterscape, such as the features identified by Taçon, may be universal, but the way these innate pre-dispositions are expressed in landscape preferences is not common to all cultures and individuals (Jacobs 2006, 238). Jacobs (2006, 237–9) thereby advocates tearing down the paradigmatic divide between generic and contextual knowledge, as landscape experiences result from both innate and learned properties.

How then does this relate to the site at Eide? Although the flat-topped hill continues to be among the most popular housing areas in Odda (Røyrane 2011, 143), today's site cannot be seen as a powerscape in line with the two contexts discussed. There are changes in the physical landscape, as the area has been levelled out and several buildings are clustered at the site. Eide can be described as a typical residential area (Fig. 10.9). Thus, the site has changed, with respect to all three landscape phenomena: matterscape, powerscape and mindscape. At present, a different site in Odda exists as the subject of a powerscape dispute: the ground where the smelting plant was once in operation. Several interests are in conflict about how to utilise this space.

The system of norms and regulations that shape powerscape are not universal (Jacobs 2006, 10); nor can information about powerscape be deduced from matterscape. This means that even though there are similarities in how the matterscape, in the form of an elevated positioning with a wide-ranging prospect, was used as a source of power at different times in history, it does not automatically uncover knowledge about powerscape everlastingly since these are two separate phenomena.

Ingold (1993) emphasises the temporality of the taskscape in how human activities are sedimented. The accumulated imprints remain visible in the landscape long after the activities were conducted. Relatedly, it has later been claimed that when emplacing new social relations in a landscape, one can never escape the past and the grip it possesses over the present. Landscapes can be seen as having a certain *path dependence* to them, meaning that the formation of new spatial and social structures is not shaped on a clean geographical slate. Instead, the process is historically dependent where previously constructed elements, and the social relations which were bound to them, have the effect of 'ossifying in the landscape' (Herod 2011, 29, 36). However, the construction of the villa should not be seen as an expression of *longue durée*, or



Fig. 10.9: The area as it appears today (photo: Anne Drageset 2014).

as a case where past meaning was transferred onto the present. If anything, the swift removal of the barrow represents the opposite. The industrial community of Odda was future-oriented. Workers and investors were not concerned with the past, or seeking a national identity, but with looking ahead and out to the world at large. Visions of a good life lay in the future, in the progress that the industry represented (Ågotnes 2007, 81).

Parallels in landscape utilisation

From the Iron Age to the industrial age – this case study has revealed striking parallels between these long-distant eras. The intentional expression of dominance and hierarchy found a way of utilising the same landscape features. A concurrence in the way the landscape was exploited at two points in time has thereby been demonstrated.

Burial mounds as funerary monuments reflect an aspect of religious practice. Still, it is evident that there was also a strategic element embedded in the way the mounds were distributed throughout the mortuary landscape. Monumental and strategic spots, such as the elevated plateau at Eide, seem to have been particularly attractive. With the construction of the Brucevilla at the beginning of the last century, it is clear that the visually protrusive landscape setting was equally attractive when a new power position needed to be marked. Suddenly, the prehistoric grave came to

limit development and evolution, and had to be erased to make room for the principal residence in a new industrial landscape. In doing so, a prehistoric power base was cleared away in order to provide space for a modern counterpart.

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Chapter 11

Temporality in a Maori landscape: the progression of inter-related activities over 400 years in the Hauraki Plain, New Zealand

Caroline Phillips

Introduction

Timothy Ingold defined temporality as being the passage of time in which a series of events, activities or taskscape 'encompass a pattern of retentions from the past and protentions for the future' (Ingold 1993, 157). This is more than just a cultural sequence, as it involves the understanding of how space was socially constructed through a network of inter-related rhythms and events. Both Ingold (1993) and Christopher Tilley (1994) explored how to better incorporate a cultural viewpoint into the understandings of landscape. Their aims were to adopt 'a dwelling perspective', according to which the landscape is constituted as an 'enduring record of – and testimony to – the lives and works of past generations who have dwelt within it, and in so doing, have left there something of themselves' (Ingold 1993, 152), and to recognise that the 'places that [people] do occupy take on, through time, particular sets of meanings and connotations which are at least partially interpretable from archaeological evidence' (Tilley 1994, 2).

While Ingold (1993) viewed *The Harvesters*, a 16th century painting, to demonstrate his mode of interpretation, Tilley (1994) employed modern ethnographies to underline the significance of the landscape, prior to his exploration into the phenomenology of prehistoric Britain. Although Tilley's approach has been criticised (Brück 2005), his emphasis on non-Western societies makes it relevant in the Maori context. They both suggested that people have a broader concept of space, place and land than merely rational decision-making. Instead, they argued that the topography contains locales or centres of human activity, in which there are architectural and natural landmarks connected by networks, tracks or movements, and all are related to the people and made significant through their myths, narratives and continuing actions.

In discussing ways to better interpret cultural landscapes, various authors have asserted the values of incorporating historical and oral accounts to broaden the range of information considered, and reflected on the appropriate methodologies (*e.g.* Lightfoot 1995; Nicholas and Andrews 1997; Trigger 1997). Ian Hodder (2005, 138), discussing a new liaison between archaeology and anthropology suggested that the 'potential for interaction is greatest where the two disciplines are sovereign and bring their own expertise and questions to the table'. Ann Stahl (2001) also advocated an interdisciplinary approach that included cultural, where the emphasis was on examining any points of divergence between the sources.

Although most of the examples cited above relate to North America and Britain, the combination of a number of different disciplines found root early in the Pacific. Arguably the first to use this approach was Maori academic, Te Rangi Hiroa (also known as Sir Peter Buck), who as the ethnologist in a multi-disciplinary team from the Bernice P. Bishop Museum in Hawaii, integrated oral accounts, material culture and ethnographies, with the fledgling disciplines of archaeology, biological anthropology and linguistics in his history of the settlement of Polynesia (Hiroa 1938).

In New Zealand, archaeologists have been slow to consider landscape from a Maori point of view, despite rich Maori oral traditions and accounts written by 18th and 19th century European visitors. Analysis of this material has generally been restricted to the historical and ethnohistorical disciplines (*e.g.* Sinclair 1959; King 1989; Salmond 1991; 1997; Ballara 1998). This situation arose because although the earliest archaeological writings employed ethnographic accounts, some of the Maori oral traditions were reported uncritically, or even modified to fit the preconceptions of the ethnographers (Simmons 1976; Howe 2003). Owing to the misuse of such material and the perceived difficulties of matching Maori accounts directly with archaeological data, most archaeologists distanced themselves from employing oral histories (Golson 1960; Davidson 1993, 250–2). However, there have been a few notable exceptions (Sullivan *n.d.*; Kahotea 1983; Anderson 1998). In these, it was the everyday practices and commonplace matters, rather than tribal political histories, mentioned in Maori oral histories that were found to be closely aligned to archaeological material.

This paper investigates whether an interdisciplinary approach could yield more detailed information about past Maori landscapes and, in particular, if interpretations aided by the oral histories of the people whose past is being studied can lead to an understanding of temporality and tasksapes. Data from four different disciplines is presented and the combined results are discussed in relation to the evidence about the natural environment and geomorphological processes, the Maori economy, settlements and land-use concepts. A discussion considers the biases in the material, and in particular, the effect of palimpsests on any analysis of temporality on such mobile societies. Finally, an abstraction of temporality that attempts to interweave technical, social and ritual activities is proposed, based on Maori cyclical land-use in the Hauraki Plain.

The Hauraki Plain

The area used to explore temporality in a Maori landscape is the Hauraki Plain, in the North Island of New Zealand (Fig. 11.1). From around AD 1450, groups of Maori settled along the river banks. This was a challenging low-lying landscape that might be regarded as relatively inhospitable for human occupation, being prone to regular flooding from both land and sea, and containing heavy soils largely unfit for crop cultivation (Vine 1987; Whitley 1992). Yet, over a period of 300 years prior to European contact in 1769, these groups developed new techniques for inhabiting the land that enabled them to become one of the most powerful tribes in New Zealand, possessing the richest known assemblage of Maori material culture.

This area was the location for the foundational works of archaeologists Jack Golson (1959) and Roger Green (1963). At the time these authors presented their hypotheses, the archaeological record was very limited, historical accounts were little used and the local oral traditions had not been well-studied. It was only when Simon Best (1980) undertook an intensive field survey along the east bank of the lower Waihou River and investigated the key site of Oruarangi, where the rich assemblage had been found previously, that the intensity of settlement started to become apparent. Best employed early European eye-witness accounts to link Oruarangi to his archaeological findings.

Recent work in Hauraki with an historical approach (Monin 2001) and a Maori viewpoint (Turoa and Royal 2000) employed very similar sets of information from Maori oral accounts, as well as early European histories, to present somewhat different, but overlapping interpretations of the past. In addition, there was a review of the Oruarangi artefact assemblage (Furey 1996), further intensive archaeological field surveys, archaeological excavations and a series of environmental research projects.

These studies can be considered as four disciplines: the physical landscape studies, archaeological data, Maori oral accounts, and European histories (Table 11.1). This section of the paper draws on my research (Phillips 2000), which brought the findings of these different projects together into an analysis of Maori occupation along the river from the time of first settlement in this area until 1850 (80 years after first European contact and ten years after colonisation by Britain).

A range of environmental and natural studies have been undertaken for the Hauraki Plain, concerning soils, geology, fauna and flora, climate and storm data (Griffiths and Harris 1972; Suggate *et al.* 1978; Hochstein and Nixon 1979; Fleet 1986; Trustrum and Crippen 1986a; 1986b; Ayling and Cox 1987; Vine 1987; Whitley 1992). In addition, geomorphological studies have drawn on palynology, tephrochronology and charcoal identification (de Lange and Lowe 1990). Finally, archival aerial photographs, maps and survey plans provided information about the natural environmental and geomorphological processes along the river banks (New Zealand Aerial Mapping 1982; 1983; Phillips 2000, 11–34).

Given the challenging nature of the landscape for occupation (compared to the well-drained topography that existed in most places in New Zealand, some of

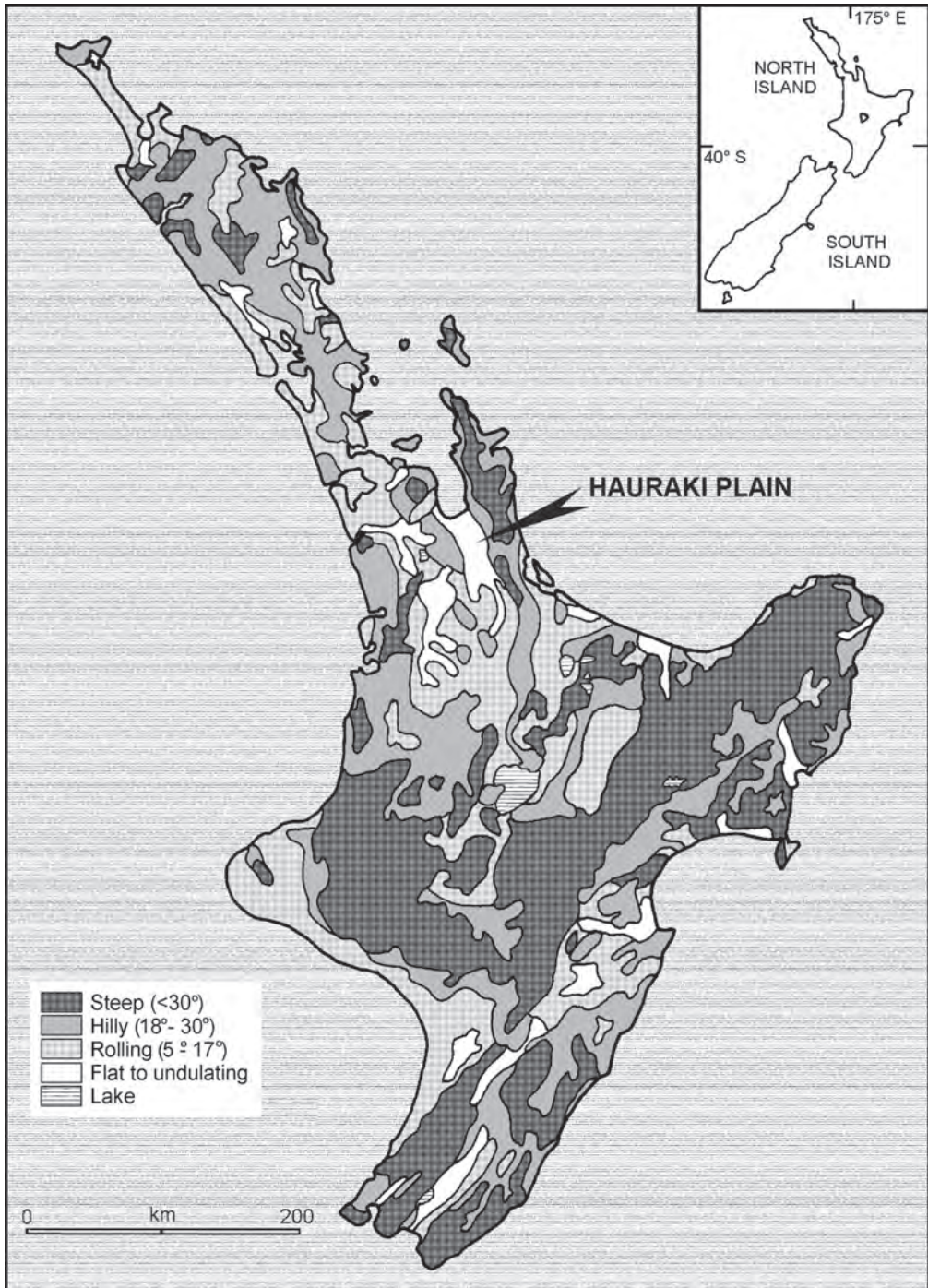


Fig. 11.1: Topography of the North Island of New Zealand, showing the location and flatness of the Hauraki Plain (based on McLintock 1966).

Table 11.1: Themes common to the different data sets (based on Phillips 2000, 160)

Topics	Physical	Archaeology	Maori accounts	European histories
Environment	Soils			
	Vegetation	Vegetation	Vegetation	Vegetation
	Biota	Biota	Biota	
	Flooding	Flooding	Flooding	Flooding
	Subsidence			
Economy	Natural resources	Resources used		
	Cultivable soils	Cultivation & crops	Cultivation & crops	Cultivation & crops
		Crop/fallow cycle	Crop/fallow cycle	
Settlements	Suitable areas	Actual location	Actual location	Actual location
		Number of sites	Number of sites	Number of sites
		Changes?	Changes	Changes
		Construction		
		Occupation length	Occupation length	Occupation length
		Re-occupation	Re-occupation	Re-occupation
		Date of sites	Date of sites	Date of sites
Land use		Settlement pattern		Settlement pattern
			Population movement	Population movement
			Land-use concepts	Land-use concepts

which also contained friable soils well-suited to the cultivation of Maori crops), it is remarkable that so many Maori settlements along the river banks have been recorded by archaeological field surveying (Best 1980; Crosby and Loughlin 1991; 1992). Surface evidence has been supplemented by limited archaeological excavation of eight fortified sites (Best 1980; Phillips 1986; 1988; Prickett 1990; 1992; Best and Allen 1991; Phillips and Green 1991; Allen *et al.* 1994; Doelman 1995). Three of these were initially undefended settlements, and the data from those phases could be combined with the results from two other excavated undefended sites (Best 1980; Phillips and Green 1991; Bedford and Allen 1992; Phillips and Allen 2013).

One of the main documentary sources of Maori oral histories along the Waihou River are the Maori Land Court Records, with their associated land survey plans. In the second half of the 19th century, when pressures were put on Maori to sell land, tribal groups went to the court to establish who could legitimately hold title. In practice, it was often sufficient for an individual on behalf of the group to state their name and tribal affiliation, and assert that this was their land. However, disputes arose in nearly half the 135 cases along the lower Waihou River. In those hearings, additional information was given about the history of occupation, physical landscape, economy, settlements, population and land-use practices (Ballara 1998, 43–51; Phillips 2000, 51–75; Turoa and Royal 2000). Although certain events, places and ancestors

dated back to around AD 1650, much of the detailed testimony related to occupation between 1760 and 1860, probably because witnesses needed to prove their rights in 1840 (the date of British colonisation).

In order to link this information to that obtained from the other disciplines it was necessary to establish a timescale of events. Dating by association with certain ancestors provided an approximate chronology. In this case, it was assumed that each generation was 25 years, and that noted ancestors were active between 25 and 50 years of age. Variations in generational length, occasional recording errors and vagueness in some records was overcome by cross-checking different accounts and not placing reliance on any single one.

First known contact between Waihou Maori and Europeans began with the arrival of Captain James Cook in 1769 (Beaglehole 1955). Cook's comments about the excellent timber suitable for ships' spars growing along the river banks motivated the British Admiralty and commercial vessels from Britain and Australia to visit the lower Waihou to extract the timber resources (Roche 1990). Rev. Samuel Marsden, who travelled on one of these ships in 1820, encouraged the setting-up of a Church Missionary Society station along the Waihou River (Elder 1932). It was this mission, established in 1833, that marked the beginning of permanent European settlement in the Hauraki Plain (Phillips 2000, 80–104).

Just before New Zealand became a British colony in 1840, European speculators and settlers purchased large tracts of land. In the years following the establishment of colonial government, some of the various officials and others who travelled through Hauraki left records of their visits. European accounts emphasised the material aspects of life and were especially valuable in documenting the precise times that certain events occurred, as well as the activities of people, the locations and names of settlements, and descriptions of the environment. A notable effect of colonisation was the introduction of infectious diseases to which Maori had little, or no, natural immunity. Some diseases also affected fertility. These were the key causes of the rapid decline in the nationwide Maori population during the first half of the 19th century from an estimated 110,000 to 60,000 (Pool 1991). Along the lower Waihou the decline was from around 2000 down to a few hundred people.

These different sources yielded information about the Hauraki people, their settlements, economy and socio-political organisation and, more particularly, a series of small-scale changes that happened over time throughout the different aspects of their lives (Table 11.1).

Environment

Extending over 360 km², the Hauraki Plain is one of the largest flat stretches of ground in New Zealand (Fig. 11.1). It contrasts with the steep and rugged Coromandel Range that ascends over 500 m above it to the east (Suggate *et al.* 1978, 265–6; Hochstein and Nixon 1979). The plain is also very low, with a rise of only 1 in 5,000 from sea level. This meant that, prior to 20th century flood protection measures, much of the

coastal land was inundated during the monthly spring tides, around the equinoxes and at times of high stream run-off (Whitley 1992, 22–4).

Prior to human intervention, the Hauraki Plain was covered in kahikatea (*Dacrycarpus dacrydioides*, a water-tolerant podocarp) forest, interspersed with swamps and peat bogs, while the hills were clothed in a mixed podocarp and broadleaf forest (Griffiths and Harris 1972, 9, 15; Fleet 1986, 78, 167, 200). With abundant fibre plants (especially the water-tolerant *Phormium* flax) and a variety of birds, timber and fruits, this was a rich natural environment for pre-contact Maori. Furthermore, shellfish lived on the river banks, fish abounded in the Firth of Thames and the streams teemed with eels (Davidson 1984, 109–10, 134–42; Fleet 1986, 103–10; Ayling and Cox 1987; Salmon 1991). Rivers and streams would have provided drinking water and were a source of stones suitable for use in earth ovens.

The river itself provided the main highway that linked all the resource areas and people, as well as to other resources and populations that lay outside the confines of the river banks. The lower Waihou River was tidal and Hauraki Maori were noted paddlers as recorded by the proverb “‘Nga ringa kei Waihou, miti taiheke” – The hands of the paddlers at Waihou, they lick up the ebb tide’ (Turoa and Royal 2000, 195).

Conversely, the soils of the plain were poorly drained with a high water table, except on the natural levees where they were overlain by freer-draining sediments brought down by the rivers (Flint and Skinner 1977, 135–6; Trustrum and Crippen 1986a; 1986b). So, despite the favourably mild climate with an average of seven months free of frosts (Vine 1987, 41), it appeared unlikely that horticulture would have been a major activity as Maori crops required very friable well-drained soils (Leach 1984, 61).

Geomorphological processes

The Hauraki Plain is part of a volatile physical system (Fig. 11.2) and at least three tectonic events can be distinguished along the lower Waihou River since human settlement of New Zealand.

Around AD 1314 (Hogg *et al.* 2003) the Kaharoa volcanic eruption deposited more than 30 million cubic metres of ash on the Hauraki Plain, principally in the Waihou River catchment. This resulted in the progradation of the coast by more than a kilometre, as well as causing significant changes in the river courses (Phillips 2000, 13), and had dramatic effects on the vegetation and biota that may have lasted over a hundred years (Pullar and Selby 1971; Wilmshurst and McGlone 1996).

A tephrochronology study in the western depression of the Hauraki Plain identified a sequence of earthquakes, the most recent of which resulted in a subsidence of 40 cm some time between 200 and 700 years ago (de Lange and Lowe 1990). If the eastern depression, where the Waihou River runs, had also subsided at the same rates and times, the low-lying coastal land would have been subjected to more frequent flooding after subsidence than it had before. Although there is no geological information for the Waihou area, evidence from archaeology suggests that there was such an event around AD 1600.

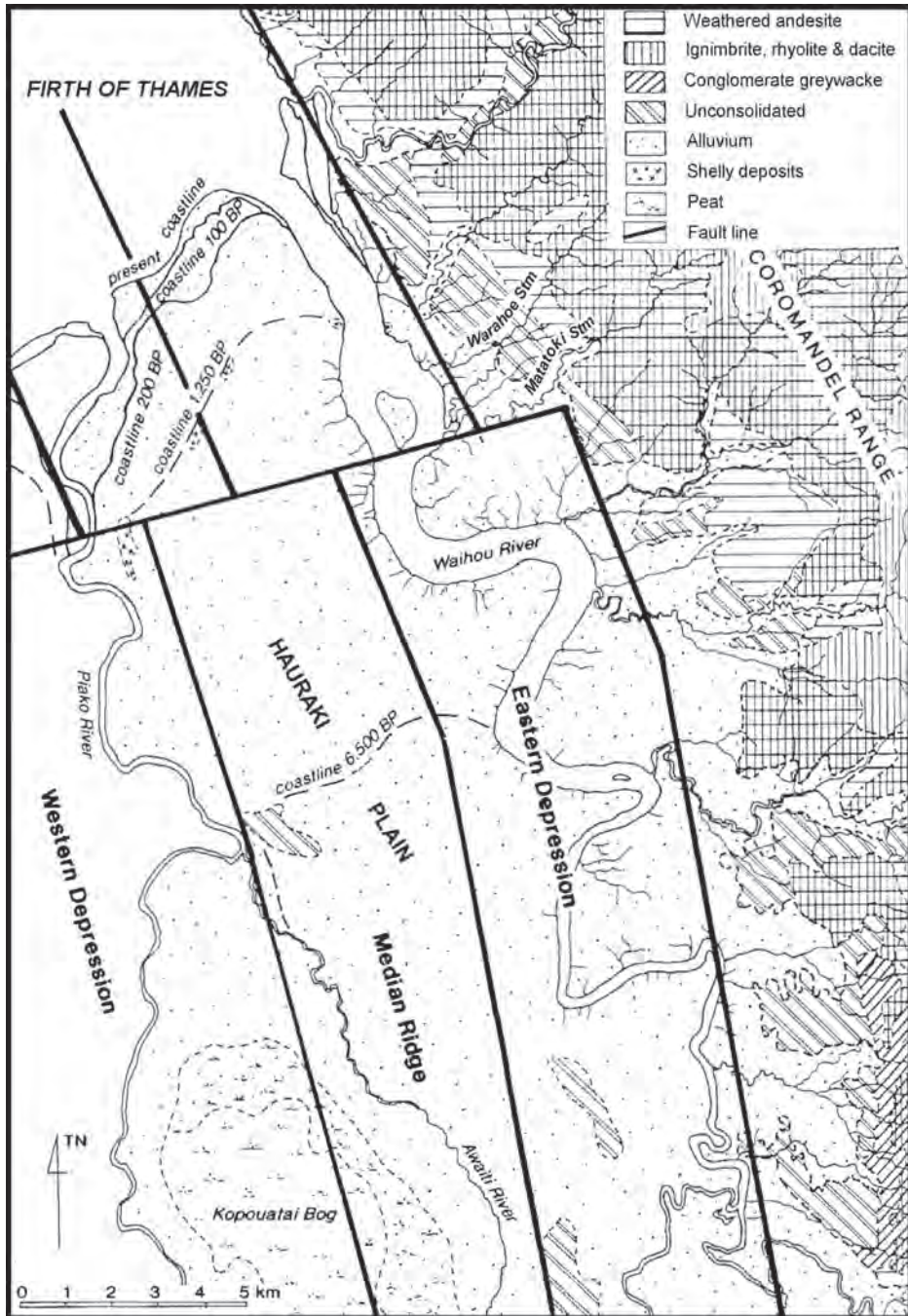


Fig. 11.2: Geology of the eastern Hauraki Plain, showing the advancing coastline in years before present and the active faults (based on Trustrum and Crippen 1986a; 1986b; de Lange and Lowe 1990; Hochstein and Nixon 1979).

Another, more localised, event may have been a small earthquake in the vicinity of the Warahoe and Matatoki Streams around 1830, as there is evidence for an episode of significant erosion at this time. Certainly between 1769 when Captain Cook visited the lower Waihou River and up until 1820 there was a navigable branch of the river, but it was filled by 1842 when the next plan of the river was drafted (Cook 1769–1770; Anon n.d.; Downie 1820). It has been estimated that it took two million cubic metres of sediment to fill the channel from the depth recorded in 1769 up to its current level (Best 1980, 82).

Economy

Environmental data indicated that there was an abundance of natural resources in the locality of the Waihou River, of which the lowland swamp biota was less common elsewhere. In all probability it was these that attracted the earliest inhabitants to the low-lying Hauraki Plain (Hoani Nahe in White 1888, IV, 48). However, most of these resources could have been obtained during the spring and late summer months: occupation during the rest of the year required development of new methods of housing and storage (Green 1963, 78).

Artefacts, features and deposits recovered in the archaeological investigations all gave some clues as to the economic strategies of Hauraki Maori during the 400 year period. Local inhabitants practised a broad-based economy, procuring locally-available fish, shellfish, birds, berries and fern root; rearing dogs for food and cultivating crops. The presence of greenstone and albatross bone from the South Island in some settlements suggests long-distance trade or exchange for scarcer, prestige materials or goods.

As part of the seasonal round, small groups would go into the forests to collect fruits and fibre, and hunt when the birds were fat. Family groups would go to the coast to fish, gather shellfish and dry some of the catch to preserve it for the winter (Firth 1972). These rich resources, available to all, were known as ‘Te Waiu a Taporerangi’ (the breast milk of Taporerangi; Te Tuhi *et al.* 1893, 10). Witnesses in the Maori Land Court said that resources from the forest were almost entirely obtained from the west bank, whereas the open wetland products were largely derived from the east. Fishing and shellfishing were restricted to the river mouth (Anihana *et al.* 1907, 130, 135), while eeling was practised everywhere. Other specific endeavours mentioned included the cutting of stream channels where the eel traps or weirs were set, repairing the weirs, felling timber to construct food stores, houses and palisades, and gathering flax for making garments. Of all the resources, flax and eels – both wetland products – appeared to be the most important.

Surprisingly, given the heavy soil conditions, swidden (slash and burn) cultivations were identified in both the Maori accounts and European descriptions. Maori stated that they cultivated plots of kumara (sweet potatoes *Ipomea batatas*), taro (*Colocasia esculenta*) and gourd (*Lagenaria siceraria*) (Taipari *et al.* 1885, 48). Maori gardens, which were not fertilised, commonly became exhausted after only two or three years (Leach

1984, 61). Fallow periods of 5–15 years were reported (Hautonga and Tinipoaka 1870), during which time the soils would have been naturally replenished by flood-deposited sediments. However, the amount of land that could be gardened was more restricted than in many other regions, being limited to patches along the raised river banks. In the mid-19th century increased flooding in some low-lying places caused former cultivation grounds to be abandoned. After their introduction at the end of the 18th century, European potatoes and other crops were keenly taken up, as they fared better on heavier soils than kumara.

Prior to these introductions, kumara was the principal crop and its cultivation involved the most consistent effort, beginning in early spring with either clearance of annual weeds if the ground was to be re-cultivated, or by burning short-lived timber after a fallow period (Leach 1984). This was followed by digging the ground to loosen the soil and incorporate the charcoal, mounding up the growing plots and planting the tubers. Throughout the five-month growing season the gardens were constantly weeded. Finally the crops were lifted, dried and stored, probably in raised store houses rather than in the semi-underground pits that were common elsewhere.

Settlements

Environmental studies identified suitable situations for occupation, whereas the other sources located the actual occupations. Although some settlements were situated in the naturally more-favoured positions, the surprising finding was that the majority, including most of the areas of intensive occupation, were constructed on the swampy river banks north of the Hikutaia Stream (Fig. 11.3). These required the development of various strategies in order to make the locations habitable, the most significant being the transportation of vast quantities of shell up to 15 km along the river.

In the northern Hauraki Plain, shell was the most visible component of Maori settlement sites recorded by archaeological survey (Best 1980; Crosby and Loughlin 1991; 1992). Midden shell, together with subfossil shell quarried from natural deposits, was transported to the settlements where it was used to form slightly elevated foundations. Typically, *kainga* (small undefended living sites) were composed of a series of low shell mounds, while fortified *pa* had larger, higher mounds with surrounding ditches and banks. I have estimated that some 50,000–65,000 m³ of fill material was needed to construct the foundations of all the recorded northern Waihou River sites (Phillips 2000, 47).

Along the lower Waihou River banks, a total of 209 settlements were reported by all the sources (145 in the archaeological surveys, 114 in the Maori Land Court minutes and 28 in the European accounts), comprising 160 undefended settlements and 49 fortifications. Nearly two-thirds of the undefended settlements identified through archaeological survey contained one shell mound and were interpreted as temporary camps. Others that contained between two and 15 separate mounds in close proximity, comprising a living space up to 1400 m², were presumed to be complex *kainga* or villages belonging to longer-term communities.

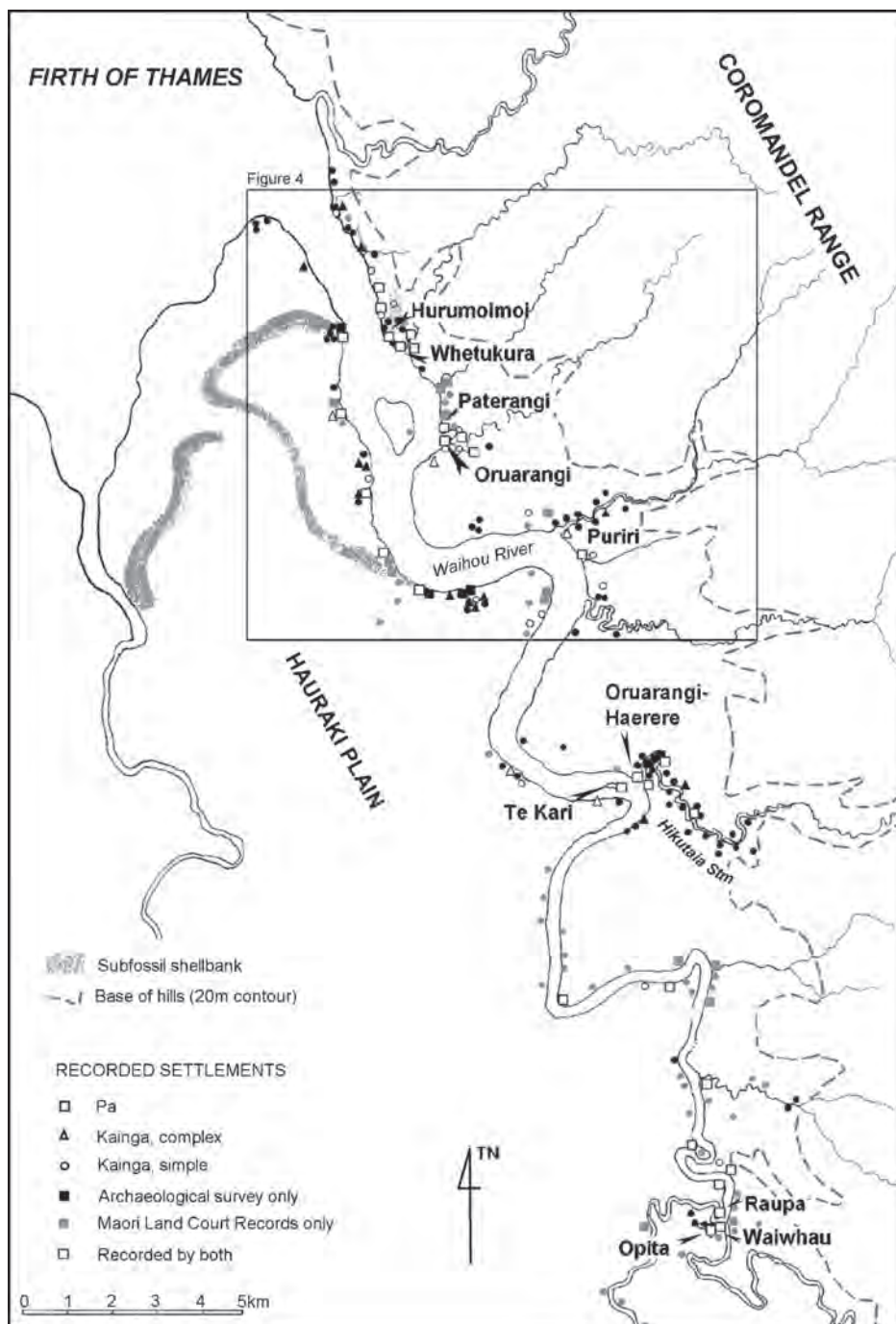


Fig. 11.3: Combined distribution of Maori settlements along the lower Waihou River, from archaeological and Maori sources, with inset showing position of Fig. 11.4 (based on Phillips 2000, 74).

Pa were the largest settlements, enclosing areas from 1500 to 20,500 m² in extent, although all but three were less than 10,000 m². Archaeological evidence showed that they were defended by ditches and banks, and surrounded by palisades. Along the lower Waihou River, *pa* were protected by very shallow ditches that were often more than 5 m wide. In this environment, ditches became moats at high tide making greater depth unnecessary, while at low tide the soft muddy river banks provided a natural defence. Defensive banks also tended to be wide, rather than high, and could well have had a secondary function of protecting the interior from flooding. Wooden palisading constructed on top of the defensive banks varied in size. In some cases, posts measured up to 50 cm in diameter and possibly rose 3–5 m high, whereas others were less than half those dimensions. Internal features in the sites included houses, food storage structures, fences, drains, hearths and earth ovens. Most archaeological excavations were not of sufficient size to define the internal layout, but some separations between activities could be distinguished.

Seventeen concentrations of settlements were identified north of the Hikutaia Stream. Archaeological site surveys located 13 such concentrations and the Maori Land Court records reported six. These incorporated a mix of camps, complex *kainga* and fortifications, which tended to be separated by 2–3 km from other similar concentrations, being focused around the junctions of streams with the main Waihou River channel.

All the sources provided information about the issue of temporality: identifying longer-term political changes, shorter economic cycles and seasonal movement. Longer-term changes were indicated by information relating to the fortifications and settlement concentrations. Curiously, none of the 11 settlement concentrations incorporating the complex shell mounds were mentioned in either the Maori narratives or in the European accounts. If these settlements were constructed in response to earthquake subsidence around 1600, but abandoned before c. 1760 (the time when the Maori evidence was more detailed and the time of first European contact), they may have only been occupied over a period of 150 years or less and been part of a particular strategy that was not continued. European eye-witnesses between 1769 and 1850 identified many of the *pa*. The earliest descriptions referred to a concentration of occupations north of Oruarangi *pa*, with no others for a distance of some 8–10 km to the south. Later accounts referred to smaller, more scattered settlements in the southern stretch of the river and fewer in the north. In this second post-European contact phase (c. 1830–1850), the nature of the settlements seems to have reflected the loss of population, as well as changing economic and political imperatives.

From the combined evidence it appears that some *pa* were only defended briefly once. Others were re-fortified every 60–100 years, especially those with richer traditional histories, more complex stratigraphy and abundance of artefacts. When these factors are considered together with Maori mobility, it suggests that occupation of a *pa* may have been as little as 3 years and probably no more than 30 years at any one time, and that only a fifth of the total number of *pa* may have been occupied

simultaneously. Occasionally *pa* were said to be purpose-built for a particular event and were not necessarily designed to be long-standing. *Kainga* were short-term settlements of 2 or 3 years duration, generally associated with cultivations, but the same location might be re-occupied by the group 15–40 years later. Finally, there were specialised short-term campsites associated with eeling and fishing.

Archaeological dating of occupation phases in the settlements used a combination of 27 radiocarbon dates, identification of post-European contact materials (nine sites) and the association of deposits with dated flood events (three sites). In addition, association of the sites with known ancestors enabled a genealogical chronology of 91 settlements. These combined sources suggest that the land was first occupied in the 15th century. Initially residence focused on the raised former shorelines near the coast. During the late 16th century the first fortifications were built, and through the late 17th and early 18th centuries the number of settlements increased. Some time around AD 1600 shell began to be imported to raise the foundations of settlements at risk of flooding.

Maori accounts say that Hako, the eponymous ancestor of the Ngati Hako tribe was the earliest person who lived in Hauraki. Later, there were battles for supremacy and the Marutuahu confederation of tribes took the land through a series of conquests and strategic alliances, including marriage (Turoa and Royal 2000, 59–71). Genealogical dating of these two events is consistent with the archaeological information. Peace among local tribes was finally made, but disputes with outsiders continued into the mid-nineteenth century. One conflict that had significant repercussions occurred in the early 1820s. Ngapuhi, a tribe from the north of the North Island, who were the first to be armed with muskets, attacked a number of Hauraki *pa* (Monin 2001, 57–67). Fearing future attack, the majority of the inhabitants abandoned the district for some 8 or 9 years. Although the Hauraki people returned when they had obtained sufficient weapons, many did not remain long around the lower Waihou itself, but moved north to the Firth of Thames to be near European trading centres (Fairburn ms.).

Land-use concepts

The previous sections give some indication of the intermittent nature of occupation, but it was the understanding of certain Maori concepts that revealed the cultural imperatives behind the mobile and non-exclusive organisational system of their land-use practices.

Rights to the land and its resources were generally at a subtribal or clan level substantiated by the presence of ancestral burials, *pa*, associations with noted chiefs, gardens, as well as continuing occupation (Ballara 1998, 17–22). However, subtribal lands were not exclusive: Maori patterns of land-use were a patchwork of overlapping rights (Hautonga and Tinipoaka 1870, 317–23; Fig. 11.4). Moreover, individuals inherited rights bilaterally and therefore could belong to more than one subtribe. Consequently, each inhabitant could claim multiple land holdings along the river and, as these holdings were mainly associated with cultivations, this enabled the

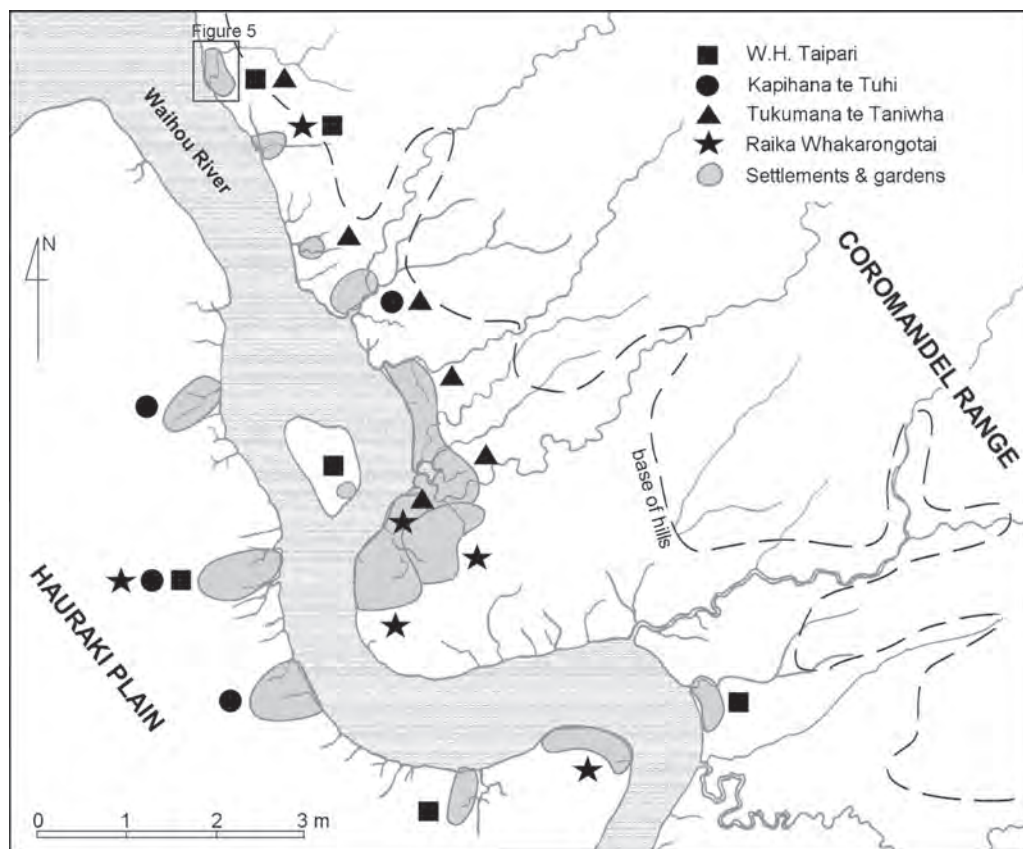


Fig. 11.4: Culmination of overlapping land rights of four of the principal claimants in the Maori Land Court c. 1880 along the northern part of the Waihou River, with inset showing position of Fig. 11.5 (based on Phillips 2000, 67).

frequent shifting of gardens that was essential in swiddening. Within these lands, use of specific resources could be restricted to certain groups and chiefs, but these existed alongside large areas in which the natural products could be used by all local tribes without question (Te Tuhi *et al.* 1893, 10). Fortifications and other settlements were also often associated with more than one subtribe.

Witnesses described the concepts of *mana whenua*, *take* and *ahi ka* (Lanfear ms.; Mutu pers. comm. 2000; Williams 1975). *Mana whenua* (political and spiritual control over the land) meant that political power could change without necessarily requiring a change of population. Such changes might involve different actions and directions led by a new chief or chiefs. *Take* (causes, reasons for action) were invoked by chiefs to justify warfare, the movement to different areas, meetings, events, and the construction of *pa*, *kainga* and meeting houses. These *take* had to be acceptable to the whole group, but once adopted could have resulted in rapid change. *Ahi ka* (literally: keeping the

fires burning) was the cyclical relocation to gardens and other lands throughout the subtribal territory in order to maintain a group's rights. Uneven distribution of the natural resources, and the necessity to shift cultivations frequently, may have created a need for multiple land holdings. *Ahi ka* in particular had economic, political and social functions in permitting individuals to be able to reside in any one of a number of different locations.

Discussion

Taskscapes are implicit in the annual round of activities, such as those related in Ingold's 1993 discussion of *The Harvesters*, where planting, harvesting and food preparation are part of the seasonal activities. What is seen in the picture is not an isolated event, but a series of well-constructed inter-related activities that have been repeated many times. Hints of continuity and greater time depth are seen through the presence of a church, path and tree. Long-term developments associated with people's relationship with the physical and cultural landscape were discussed by Tilley (1994). In Hauraki, the combined information provided a picture of a complex system, which identified both the seasonal patterns and long-term changes over time (Table 11.2). Intermediate to these time scales, Hauraki Maori described a cyclical system termed *ahi ka*, which had its own economic, social, political and ritual imperatives.

Archaeology alone provided information about long-term changes from the beginning of the 400 year sequence, but at a coarse level and depending largely on radiocarbon dating. European eyewitness accounts described long-term changes and political social and economic spheres at the end of the sequence, with oblique reference to cyclical movements. The seasonal round could be surmised to some extent from the requirements of kumara cultivation, the fruiting of tree crops and movements of fish and eels.

In the first half of the sequence, the oral accounts were less precise, but the use of multiple sets of data permitted the definition of longer term changes. It may well

Table 11.2: Cycles and changes. Different causes of mobility among Hauraki Maori (based on Phillips 2000, 168)

<i>Term</i>	<i>Years</i>	<i>Result</i>	<i>Causes</i>
Long	50–100	Movement into new lands	Population increases
		New types of sites	Economic development
			Environmental change
<i>Ahi Ka</i>	10–30	Grouping around <i>pa</i> of chief	Status of chief
	2–3	Establishment of gardens & <i>kainga</i>	Economic/environmental variables
			Maintaining polity
Seasonal			Garden rotations
		Movement to gardens	Seasonality of resources
		Fishing, birding & gathering plants	

be the case that first occupation in Hauraki and elsewhere in New Zealand did not employ the *ahi ka* system: a system not practised in the Polynesian island groups where Maori originally came from (Crocombe 1971). However, even in this time, the mobility of Maori occupation suggests that analytical methods used to understand changing tasksapes that rely on sedentary occupation and fixed boundaries should be avoided.

In the second half of the sequence, the detail of cyclical movements, which were associated with the particular events which stimulated those changes, could only be derived from the detailed Maori accounts, but even here there were absences. Narratives were related by a few important people, mainly men. Not every recorded site was mentioned in the oral accounts, nor was every phase of occupation – even at important sites. What could be glimpsed, was that during that time Maori in Hauraki had very flexible, adaptive and mobile settlement systems. These systems provided an insight into the challenges of the palimpsest: in most places the pattern of evidence would be viewed as a culmination of repeated occupations, or average tendencies (Bailey 2007).

Returning to the recorded Hauraki settlements, of which archaeology provided the fullest number: these showed a pattern of settlement, but this is a palimpsest stretching over a period of 400 years. So while a small isolated site might represent one event – a temporary encampment by a handful of people – the same analysis might not be possible of the clusters of larger sites. Any cluster might represent a large semi-permanent village on the one hand, a place of frequent temporary encampments or some combination of the two.

Part of one of these clusters has been excavated: a grouping of settlements around the Waipapa Stream (Phillips 2008; Fig. 11.5). This revealed evidence of a semi-permanent, rather than temporary, settlement (recorded as layer 2, see Fig. 11.6). An earlier occupation preceded it by possibly 70 years and another was 350 hundred years before the latest occupation. It was not possible to determine whether adjacent shell mounds were inhabited at the same time as any of these three episodes. The practice of *ahi ka* would suggest the latest settlement was possibly of three years duration. It could be argued that this too is a palimpsest, not representing a single scene or event, but a series of food gathering and preparation episodes, dwelling construction, artefact manufacture, eating, sleeping and general domestic life events. However, the short time-span suggests that it can be taken as a place of several temporally inter-connected and repeated events.

The use of oral accounts to analyse this settlement raises the issue of a timeless ethnographic analogy (Murray 2008). In this case, the witnesses in the Maori Land Court in the 1880s were talking about their immediate past – less than 100 years earlier in the case of the latest occupation at the excavated site at Waipapa. This then becomes an oral history presented by the direct descendants. Hauraki was not unique and this pattern of occupation was well-known throughout New Zealand around the time of European contact (Hiroa [Buck] 1949, 379–82; Firth 1972, 383–8).

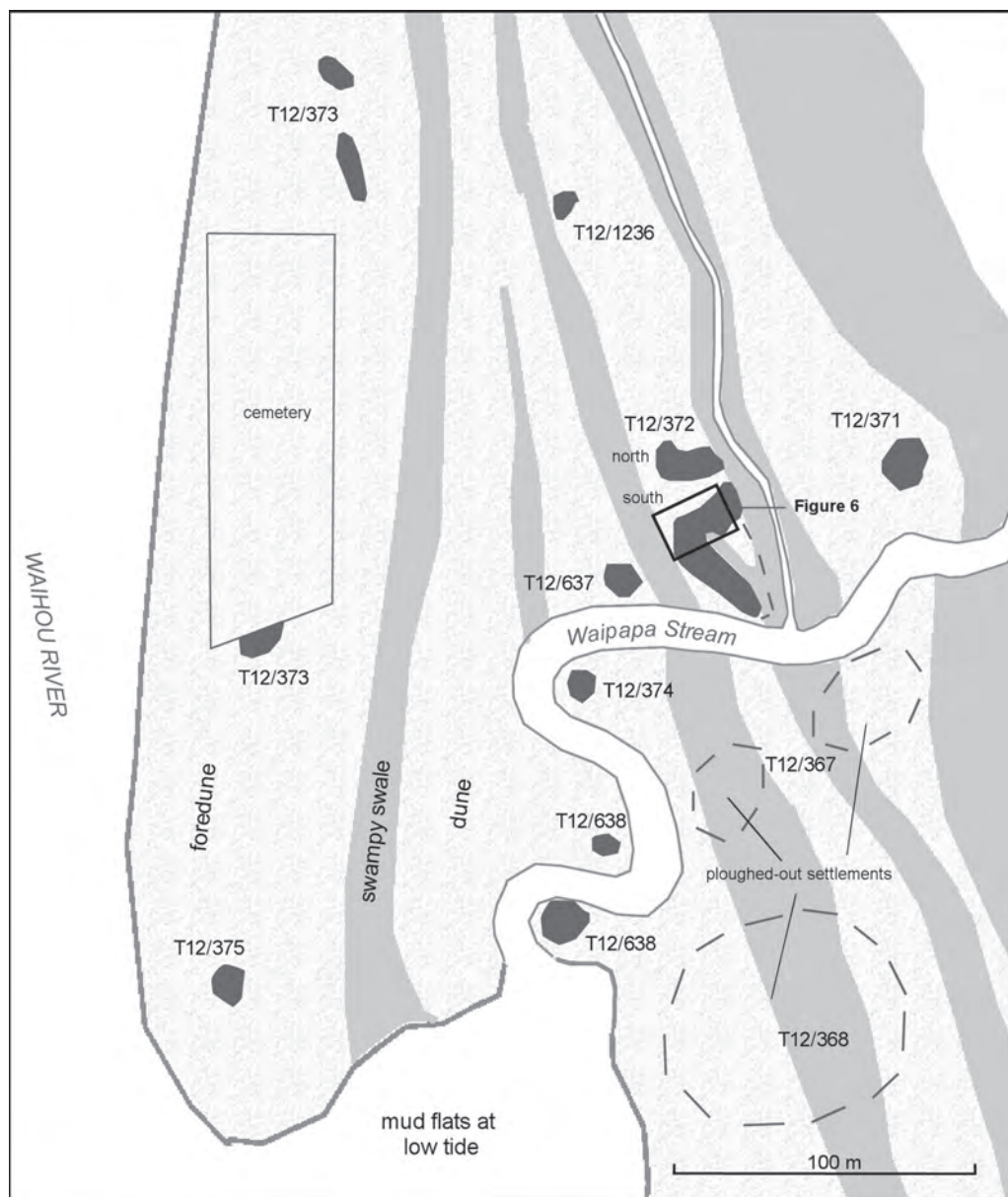


Fig. 11.5: Reconstructed landscape at the mouth of the Waipapa Stream, showing cluster of recorded settlements, with inset showing position of Fig. 11.6 (after Phillips 2008, 13).

Temporality in Hauraki

Given that ahi ka was arguably the principal land use system between c.1650–1850, and appears to have structured the placement, type and frequency of settlements, it

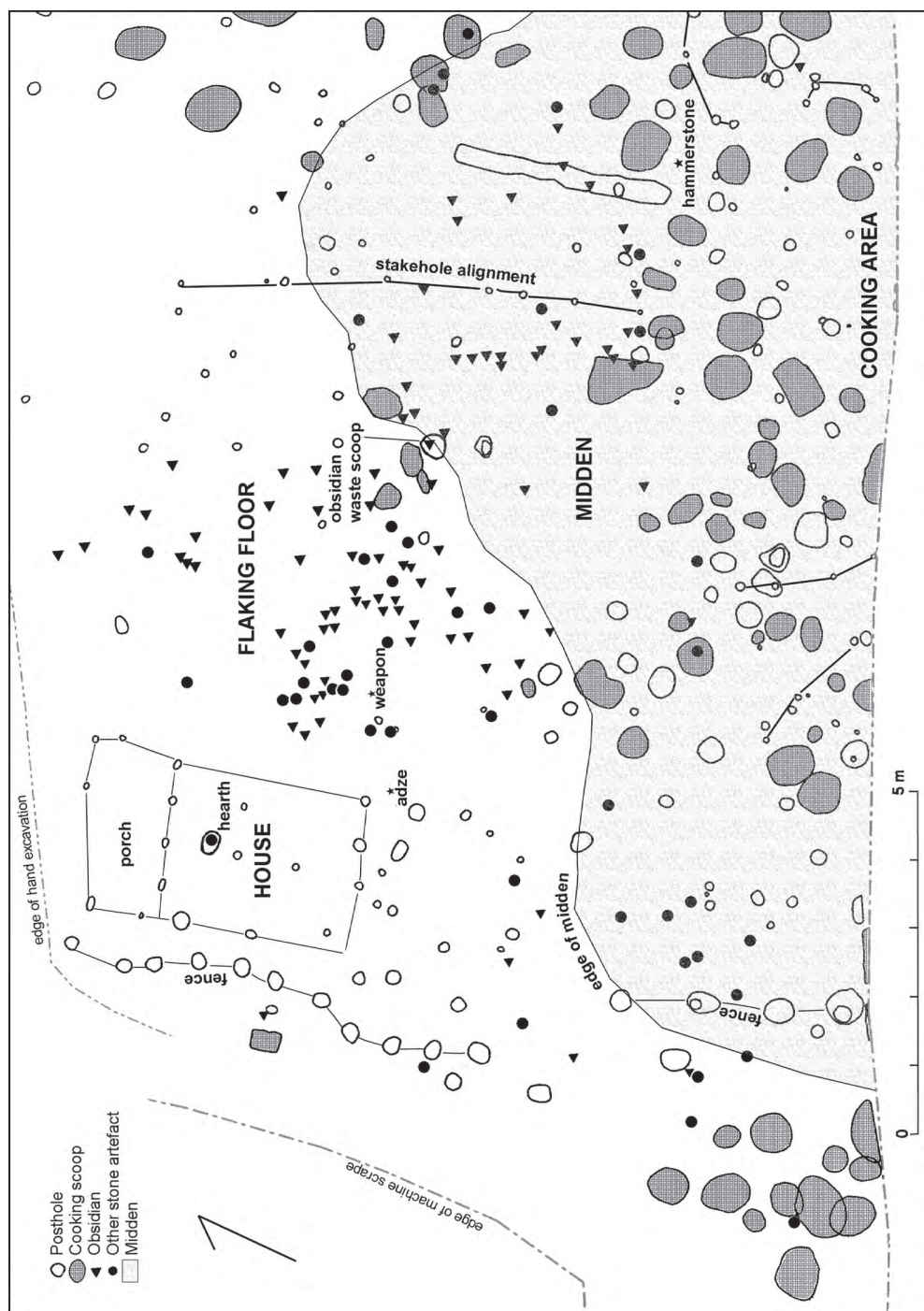


Fig. 11.6: Detail of layer 2 occupation in the excavated southern part of recorded settlement T12/372 at Waipapa (after Phillips 2008, 46, 53, 56).

was foundational in forming the changing tasksapes. So how does that knowledge assist analysis of the archaeological record in general and, in particular, how does that affect an understanding of temporalities at the Waipapa cluster of sites? The rest of this paper concerns this question. As is common with oral accounts there is no full historical account that can be used for this purpose. So what follows is a brief narrative – an *abstraction* – in which the changing uses of space by two subtribes is described and represented in Figure 11.7 (although realistically there might have been four times as many subtribes, including some from different tribal groups).

In the first phase the black subtribe only reside on the west bank, while the white subtribe lives on both. The black group have a small defended site to over-winter their crops in case they are raided by tribes from upstream. However, a chief of the black subtribe proposes the *take* of a peace treaty and organises the construction of the small black *pa* with a meeting house inside in which to host the event. Both subtribes plant extra crops, fish in the river mouth and harbour, harvest more eels and, walking along the established footpaths, gather resources from the forest for the feast to seal the agreement.

In the second phase, peace has been confirmed and the two subtribes have ceased maintaining their fortifications. They take advantage of being able to cultivate their ancestral garden lands that have lain fallow nearer the river mouth to ensure that others do not claim what might be seen as vacant land: as a practice of *ahi ka*. They also gather and preserve shellfish in shore-based camp sites. Time formerly spent on maintaining the *pa* sites can now be used on other activities, including gathering flax from the swamps to make ceremonial chiefly cloaks and carving wooden storehouses.

In the third phase, stormy weather has resulted in coastal flooding and the subtribes move inland. In addition, there is a threat of reprisals from the north, so the white subtribe quarries subfossil shell to create the foundation for a small fortification and fells timber in the forest above, dragging it down the gullies to form the palisades, and harvests vines to bind the timbers together. Both groups move to the southern banks, from where they can escape more easily into the hills above, if overwhelmed by their enemies. Their fishing grounds are also slightly more restricted.

Finally, in the fourth phase, ongoing fear of attack prompts the white subtribe to reconstruct their small fortification on the west bank, where the earthworks and some of the large timbers are still present. The soils in this area, formerly inhabited in the first phase, have been replenished by several flood deposits. In addition, a prominent tribal chief who is affiliated to both groups selects a location on which to build a large fortification as a show of strength and *mana whenua*. Selection of the site builds practically on previously elevated ground and ritually on the prestige of the locale based on its earlier history and the nearby presence of noted ancestral burials. This *pa* is intended to be a more permanent residence and a centre for social, ritual and political events. The *take* the chief espouses is eagerly taken up and all the subtribes join to create an imposing structure, clearly visible from passing canoes in the harbour. Excitement and fear result in a clustering of gardens and the small

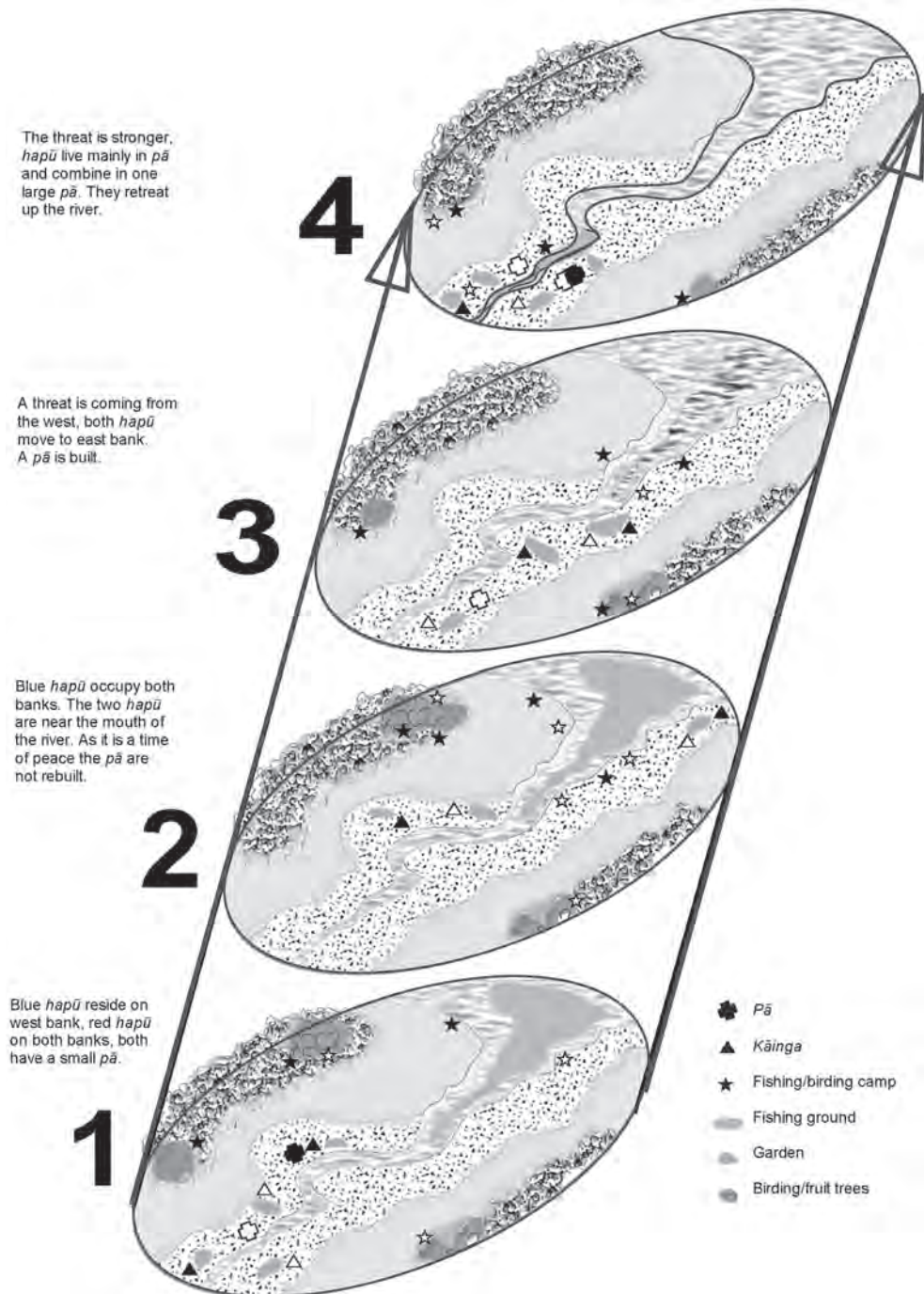


Fig. 11.7: Temporality in action: model of movement by two Maori subtribes in Hauraki at 3–10 year intervals (after Phillips 2004, figure 6).

villages are located close to the *pa*, so that the inhabitants can retreat to the safety of its fortifications quickly if necessary.

Summary

By using interdisciplinary data it was possible to identify long-term, cyclical and seasonal temporalities. While seasonal movements probably occurred throughout the 400 year period, cyclical movements may have only developed during the second half of the sequence. These were very flexible, adaptive and mobile settlement systems, involving no fixed territories or sedentary occupation. An understanding of those systems, and hence the changing inter-related events, was achieved by using indigenous concepts. Thus, the events had multiple rhythms – seasonal, cyclical and longer term – as well as economic, social, political and ritual imperatives. In Hauraki, as elsewhere, an analysis of the archaeological pattern of activity, including the settlement clusters, landmarks and networks, required an understanding of the particular temporal systems which generated it.

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Glossary

<i>ahi ka:</i>	retaining rights to land through regular reoccupation (literally, keeping the fires burning)
<i>kainga:</i>	undefended village
<i>mana whenua:</i>	political and spiritual authority in the land
<i>pa:</i>	Maori fortification
<i>take:</i>	cause or reason for an action, such as making war, erecting a building, occupying a certain piece of land, etc.

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Chapter 12

Sámi sacred places in ritual taskscapes

Tiina Äikäs

Sámi religion as an object of study

The Sámi are the indigenous people who have traditionally lived in the northern parts of Norway, Sweden and Finland, and in the Kola Peninsula. This wide area contains not just one, but many different Sámi cultures, separated, for example, by ten different Sámi languages (Saarikivi 2011, 78). In historical times too, the cultures, religious beliefs and concepts of the individual groups have varied, though there are shared ideas, such as the central role of sacred landscapes, natural elements and places (Rydving 1993; Äikäs 2011) and the reciprocal relationship people had with the spirits and gods that affected their lives (Schanche 2004, 5). The spirits and gods were approached by giving offerings. Offerings were made at certain sacred places, for instances sacred stones called *sieidi*. *Sieidis* are usually rocks or rock formations unshaped by human and hence their recognising demands cultural knowledge, written sources, place name evidence, or archaeological finds (Äikäs 2015, 46–50). Other Sámi sacred places included, amongst others, sacred fells, lakes, and islands.

The Sámi ethnic religion has been one of the most thoroughly studied aspects of Sámi culture (e.g. Mulk 1994; Schanche 2000; Fossum 2006; Zachrisson 2009; Äikäs 2011). The sacred places of the Sámi, ritual practices with allegations of child sacrifice and stories about Sámi sorcery attracted the interest of foreign travellers, as well as local churchmen and ethnographers (e.g. Tornæus 1900 [1672]; Acerbi 1802; Castrén 1853; Fellman 1906; Itkonen 1946). Most of the descriptions of Sámi ethnic religion come from the period between the 17th and the early 20th centuries. The viewpoint was often that of an outsider who saw the Sámi as ‘the other’ and their religion as pagan traditions that ante-dated the arrival of Christianity in the north. Even the term ‘religion’ is an etic concept that does not fully cover the notions of a worldview that included all aspects of living and livelihood (Äikäs *et al.* 2009). The other problem with the written records of Sámi ethnic religion is that they are relatively late in comparison with the use of Sámi offering sites.

In this paper, I concentrate on Finnish Lapland, where I conducted my field research. In Finland the archaeological research of Sámi offering places has been scarce before the 21st century when rising interest in the subject led to launching an Academy of Finland funded project (2008–2011). My own doctoral thesis (Finnish version Äikäs 2011; English version Äikäs 2015), which this article is based on, was part of this project. In my thesis and in this article I have used GIS to study the ritual landscapes of Sámi offering places including spatial connection between these places and other archaeological sites. Archaeological fieldwork has given new information on the offering practices at *sieidis*, their connection to landscape and their biography. Archaeological data from Finland suggests that the use of *sieidis* began in the 11th century AD. In Sweden the practice of leaving offerings is even older, with evidence suggesting a beginning from the 6th or no later than the 10th century onwards (Mulk 1996, 73; Hedman 2003, 161–89; Fossum 2006, 108; Salmi *et al.* 2015). The offerings were connected to subsistence and livelihood; they were often made in the hope of future success in hunting, fishing and reindeer herding, or following such success, as well as to prevent harm and danger to people and the herd (Äimä 1903; Paulaharju 1932; Itkonen 1948). The most common offerings were livelihood related animals or parts of animals but also metal objects, alcohol, and later tobacco were given (Manker 1957, 40–52; Sköld 1999; Äikäs 2015). Christianisation of the Sámi affected the offering tradition, as animal offerings seem to cease after the 17th century, a period when Christianisation began in northern Fennoscandia (Kylli 2012; Äikäs and Salmi 2013). But written sources mention that people gave offerings even in the 20th century and even today there are traces to be found of recent visits to the sites (Äikäs 2012; Äikäs and Spangen 2015).

Taskscape and Sámi landscapes

In my work, I approach Sámi sacred places through the concept of landscape. My understanding of landscape is strongly influenced by the concept of Ingold's (1993) *taskscape*. That is for me a landscape is that which is experienced and lived in. It is laden with meanings. How a particular landscape is experienced depends, on one hand, on factors related to the individual, and on the other hand, the cultural background created by the community. The mental models of an individual are important in experiencing the landscape. They can be created by memories of real events as well as secondary, unexpected observations or conveyed impressions (*e.g.* Darvill 1999, 106–7). Meanings are attributed to a landscape according to how and why we are familiar with it (*e.g.* Relph 1986, 56–8, 123). For example, the same forest can for one person be an everyday workplace, while for another it can evoke a romantic memory such as getting engaged. However, landscape is not only an individual phenomenon, but also a cultural one (Karjalainen 1997, 16; Keskitalo-Foley 2006, 131). Our cultural background affects the images we possess and therefore our experiences. Landscape and culture have a dialectical relationship; people's impressions shape their ways of seeing the environment, and the environment, for its part, shapes the predominant

cultural impressions of the landscape (Knapp and Ashmore 1999, 4). The cultural component of the landscape gives a social aspect to the experience; humans do not experience the landscape only as individuals, but also as members of a community. To summarise, it could be stated that the landscape is created out of experience – either imagined or real, individual or communal.

Experiencing the landscape is not a static phenomenon; instead, meanings and feelings change not only among individuals but also through activity that takes place in the landscape. The meanings attributed to a landscape change together with its changing function. The park that was a peaceful picnic site yesterday may today host a lively rock concert. According to Tim Ingold (2005, 172–88), we dwell in the landscape. Places are not encountered objectively – or as objects – but they are lived in and through. The idea of the landscape as a lived-in space is already present in Martin Heidegger's (1931 [1927]; 1994 [1951]) writing. The landscape is created out of the meeting of humans with the world, and in this meeting, activity defines the landscape.

The Sámi experience of the landscape, in particular, has been approached through activity (Magga 2007). Ingold (1993, 158) has used the term *taskscape* to describe the landscape as the theatre of human life and activity. The landscape is created out of people's everyday activities in the world. An activity or task that a person carries out in the environment is an essential part of living in the landscape. Every activity is related to other tasks carried out by other people or other types of actors, and together they all form the taskscape. An actor may equally well be a human, an animal, a tree, or even a stone that interacts with activities carried out by others. Thus, the taskscape is a socially constructed sphere formed of the activities of humans and other beings (Ingold 1993, 158; Ingold 1997, 29–30; Mazzullo and Ingold 2008, 35).

The landscape is thus experienced through motion, activity, and participation. Different activities produce different ways of experiencing and structuring the world. Audhild Schanche (2002, 163; cf. Mazzullo and Ingold 2008, 31) has noted that the Northern Sámi word *meahcci*, forest, is associated with the relationship between humans and nature. The meaning of the word *meahcci* changes according to the natural resources that are to be exploited. *Meahcci* can be *guollemeahcci* 'fish forest', *muorrameahcci* 'wood forest', or *luomemeahcci* 'cloudberry forest' depending on what activities are carried out in it. Inga-Maria Mulk (1997, 12–3) also emphasises experiencing the landscape through activity. According to her, means of subsistence and changes of season were central factors in the Sámi experience of the landscape. The landscape is very different from the viewpoints of Sea Sámi, reindeer herders, or hunters, for example. The landscape is organised from the viewpoint of the group's annual activities and the periodic movements of game animals (Lemaire 1997, 12). Activity in the landscape can vary in nature, essential characteristics, location, temporal details, or distribution (Llobera 1996, 614). The cloudberry forest of late summer may in winter assume the role of hunting forest.

Memories, stories, and myths related to the landscape have also been considered as typical of the Sámi conception of the landscape (Magga 2007, 15; Näkkäljärvi 2013).

The landscape is encultured not only through activity, but also through collective memories, stories, yoiks,¹ local tradition related to how places have been used, and place names. Mulk (1997, 12–3) speaks of a ‘cognitive landscape’. By this term, she means a layered landscape consisting of many parts, both material and immaterial, that assumes meaning through activity. The landscape is filled with images of remembering. Also in the past, people understood that they were living among the memories of the past, and so those places had meaning for them. They could be reused and imbued with new meanings and values. Elements of landscape were influenced by the relationship between past and present (Bradley 2002). On the other hand, remembering is not always tied to physical objects. In Sámi culture, it is believed that people are remembered as long as yoiks are sung about them, and also dwelling sites can be remembered for a long time after they have been abandoned. Ingold (1993, 152–3) describes the connection between acting in the landscape and experiencing the landscape through memory in a poetic way:

‘to perceive the landscape is therefore to carry out an act of remembrance, and remembering is not so much a matter of calling up an internal image, stored in the mind, as of engaging perceptually with an environment that is itself pregnant with the past.’

Memories related to the landscape guide our actions and experiences; even if an old *sieidi* is already destroyed, we can still sense the sacredness of the place and act according to the respect it demands.

To summarise, it could be said that the landscape is not a universal phenomenon. Encounters with the landscape, and the landscape itself, have varied in time and place. There are individual variations that are related to the experiences of a single person and that can therefore change as the person gathers more experience. What can we then hope to reach of all these levels of meaning of the landscape? Even though an individual’s experiences of the landscape are probably out of the reach of an archaeologist, human activity leaves traces on the distribution of archaeological remains. By studying these spatial distributions and relationships, we can understand human activity in the landscape and thus also the meanings attributed to the landscape. By bringing forward various ways of acting at sacred places and various meanings attributed to places we can approach the differences between individual experiences.

Jerisjärvi as a ritual taskscape

In the following I will highlight the connection between Sámi sacred places and ritual taskscapes using four sacred places in Lake Jerisjärvi, Muonio as an example. In total my data included 107 Sámi sacred places in different parts of Northern Finland (Fig. 12.1). These places included offering stones called *sieidi*, sacred fells, islands, lakes, and headlands (64, 11, 10, 4 and 2 sites respectively; Äikäs 2015, fig. 6 and p. 86). The topographic features of sacred places are dominated by water and high

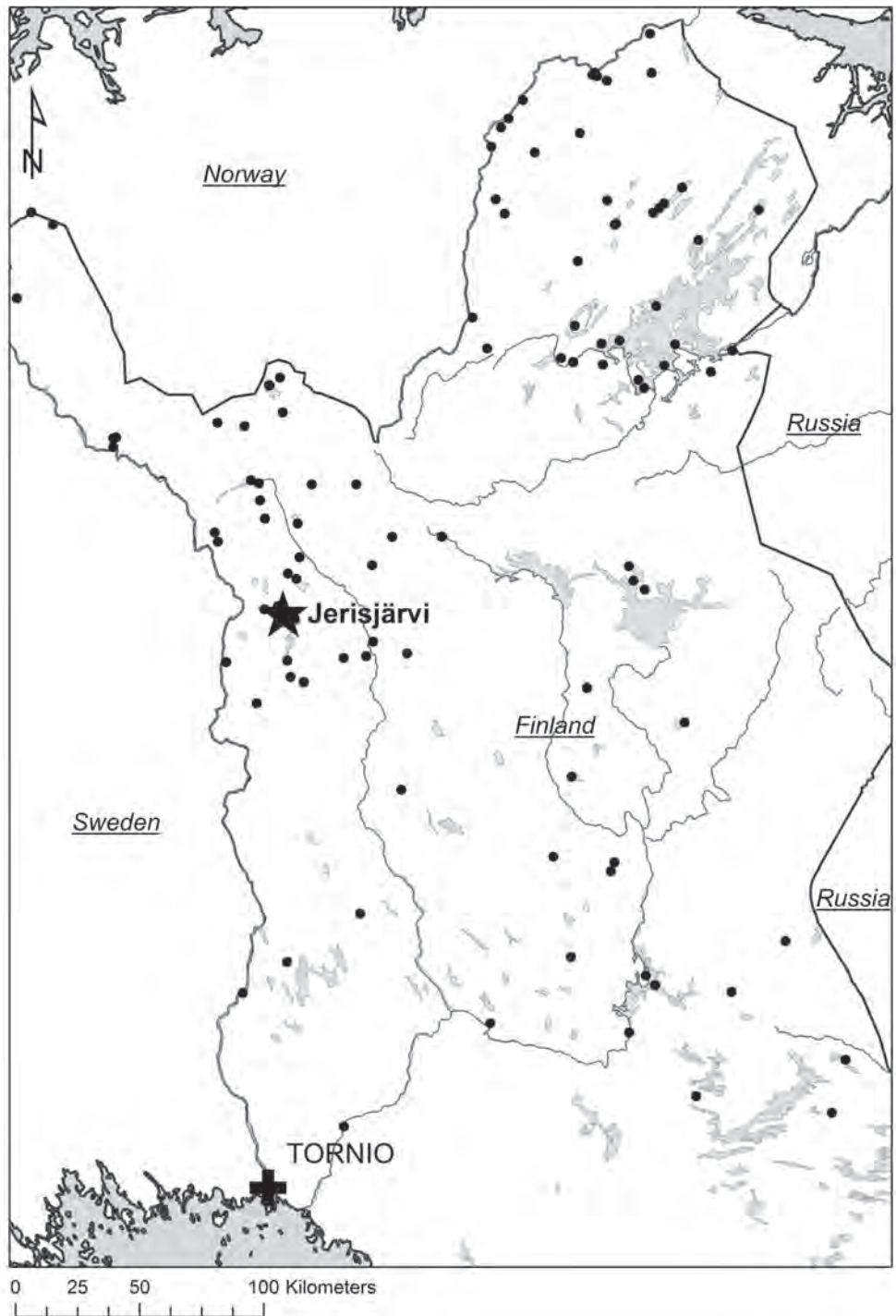


Fig. 12.1: The location of Jerisjärvi and other sacred places in Finland (map: T. Äikäs).

elevations. However, a certain kind of location has not been an unconditional rule for the selection of a sacred place, but the natural environment of the area affected the selection of places. For example, the proximity of lakes was pronounced in Inari and that of fells and rivers in Utsjoki. Closer study also shows that the relationship between sacred places and topographical features was not homogenous; there were differences in the sizes of the waterways and high places, as well as in the location of the sieidi in relation to the topographical element (Äikäs 2015, 71–81).

I have approached the different tasks related to Sámi sacred places by analysing the nearest neighbour to each place and by using visibility analysis. By visibility I mean cognitive activity that is not only associated with observing the environment in order to structure space, but also with mental models and cultural frameworks that both guide the observation process and have their roots in it.² The space structured through looking and seeing may be influenced, for example, by the manmade environment contemporary to or older than the moment of viewing, places associated to livelihood, and natural formations (*cf.* Wheatley and Gillings 2000, 3). Hence it is relevant to above described Sámi landscape in which meanings connected to subsistence strategies and memories are intertwined. In the visibility analyses I used Arc GIS software with the viewshed command and a raster-based elevation model with a raster size of 25 × 25 m, the data originating from the National Land Survey of Finland. The analyses were based on computational lines of visibility from a certain point to the areas where viewshed is not blocked, *i.e.*, if the land surface does not rise up and block the visibility between two cells. The viewpoint was the location of the sacred site. The viewshed is influenced, for example, by the viewing height, which is usually defined as 1.7 m (Wheatley and Gillings 2002, 205), and the curvature of the earth. I used a viewing height of 1.5 m, which is a better match for the average eye level of ancient people (Niskanen 2006). However, this is an estimate; in reality, a human observer's height has varied depending, for example, on whether he has sat in a boat or skied on thick snow.

I approach the spatial connections between sacred places and other sites by investigating which sites lay within a viewshed zone (maximum distance 3000 m) or buffer of 3000 m from a sacred site. Various possibilities were tested in order to determine the viewsheds. In my thesis, I divided the viewshed into three zones as suggested by Higuchi (1983, 11–17) and, in an archaeological context, Wheatley and Gillings (2000, 16–19), but for the purpose of this article the intermediate viewshed up to 3000 m is sufficient (Äikäs 2015, 90–2). The chosen area is broad enough to include possible archaeological remains, but not so broad that they would make results uniform, especially in the case of sacred places located close to each other. The viewshed reflects the space that people may have associated with activities at the sacred place. I do not consider the area of intimate activities related to rituals to be as extensive as, for example, the area in which people roamed daily in search of food. The area associated with a sacred place can be approached, for example, from the basis of Johan Ervasti's (1956 [1737], 39) description. According to him, an offering place is surrounded by an area of 2.5–3 km radius that was sacred and associated

with special rules. When studying the sites close to sacred places, sites that do not fall within the chronological limits of this study, such as Stone Age dwelling sites, were not included in the comparison. I also excluded the remains of 20th century tar burning that belong to a different cultural context even though Sámi sacred sites have been visited also in the 20th century.

The nearest neighbour analysis revealed that most often a sacred place is within a 1–10 km distance from the next sacred place. For example in Jerisjärvi, Muonio, in Iijärvi, Inari, and in village Utsjoki the sacred places form groups where in a closer analyses with the viewshed from a sacred place, the viewshed zones of more than two sacred places intersect with each other (Fig. 12.2). Areas in which several sacred places are connected to each other have been central settlement areas and taskscapes in other ways, too. In the church village of Utsjoki, human activity has long been concentrated on the junction of the Rivers Tenojoki and Utsjoki. In the southern part of Lake Iijärvi, there are historical dwelling sites and rectangular fireplaces. At Lake Jerisjärvi, there is a fishing homestead that is still used, other historical dwelling sites, hunting pits, and summer burial grounds. Both lakes are also still actively used for fishing today. Ritual activity in the landscape in these regions is therefore not detached from other activity (Äikäs 2015, 146–7).

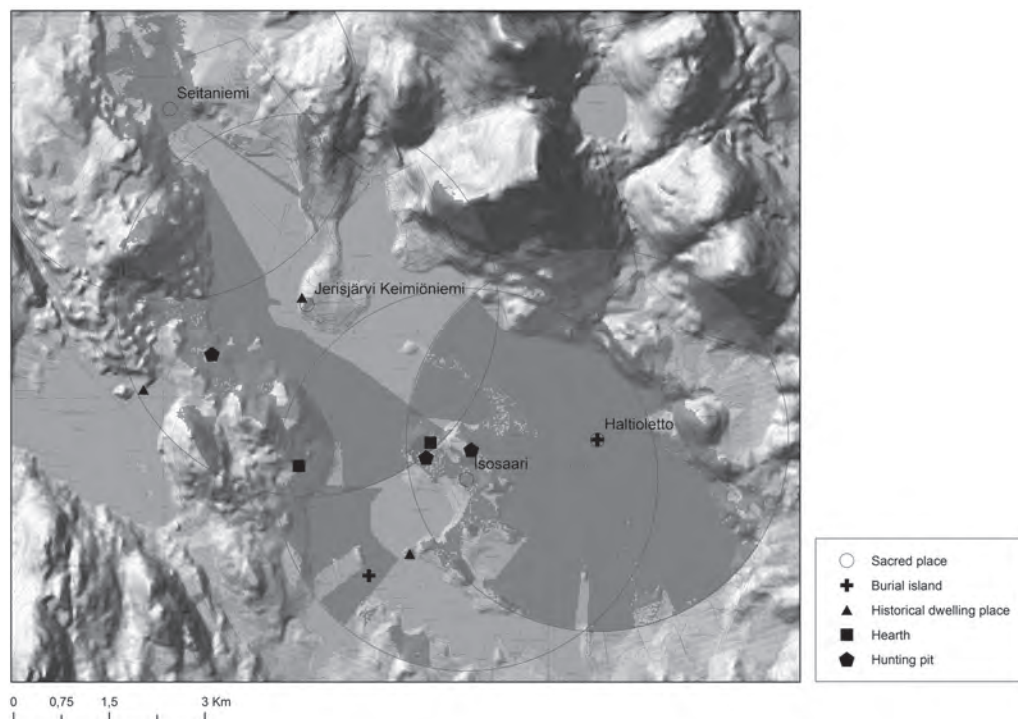


Fig. 12.2: Viewsheds from the sacred places in Lake Jerisjärvi and archaeological sites that are within a buffer of 3000 m from a sacred site (map: T. Äikäs; basic map sheet ©National Land Survey of Finland, 2015).

Lake Jerisjärvi is located on the border of Muonia and Kittilä communes south of fell Keimiötunturi. Its area is 13 km² and it is divided by several headlands and islands of different sizes. Four sacred places are located in Jerisjärvi: Seitaniemi [*sieidi* headland], Keimiöniemi, Isosaari and Haltioletto. The Seitaniemi headland is located in the north-western corner of Lake Jerisjärvi. The precise location of the *sieidi* is no longer known. According to Samuli Paulaharju (1962 [1922], 1932), somewhere on the headland there was a *sieidi* to which antlers of wild or domesticated reindeer were offered as late as the 1870s and 1880s. Paulaharju also mentions that the *sieidi* was a stone column about one metre high with a tapering end and that it was later lost. In addition, he writes that the place is associated with local folk tales of burning fires and spirits manifesting in the form of a ‘moss-bearded Lapp geezer’.

Keimiöniemi is a headland on the northern shore of the lake. It is about 2.5 km long and 1 km wide. On the south-western edge of Keimiöniemi, there is a boulder sized 7 × 6 × 2.5 m and tapering upwards (Fig. 12.3). Antti Krapu (2004) considers in his survey report this stone, which stands out from its surroundings, as the most logical option for a *sieidi* on Keimiönniemi, even though Äyräpää (1931) only mentions this headland as a place with a *sieidi* without any additional description



Fig. 12.3: Rock interpreted as a *sieidi* offering stone in the Keimiöniemi headland (photo: T. Äikäs).

on the characteristics of the stone. This boulder is the only natural formation that clearly differs from its environment on the whole headland. However, there is also younger settlement on the headland that could have affected the preservation of the *sieidi*, and full certainty of the nature of the stone as a *sieidi* cannot be obtained without further research.

Haltioletto is a small island in the northern part of the lake that is mentioned as a sacred site in written sources (Äyräpää 1931; Paulaharju 1932). In addition, the island of Isosaari in Lake Jerisjärvi has been mentioned as a former offering place without any further description (Äyräpää 1931; Paulaharju 1932).

Spatial connection of ritual activities

Proximity to water has also been a typical feature of sacred places. In the viewshed zone, there is water in 64% of all 107 places. Water can be considered as a liminal feature that connects worlds. It may also have had meaning as a transport route, provider of subsistence, or sound related to sacredness. Of the waterways related to sacred places, standing waters are more common than watercourses and also create a different soundscape (Äikäs 2015, 105–15).

Sacred places are associated with burial sites in six cases in the viewshed zone – Isosaari Island in Jerisjärvi being one of these – and in five cases in the 3000 m buffer zone. The island Muuraissaarenmulkku is located within the viewshed from Isosaari; there lies three elongated pits which have been interpreted as temporary burial places from historical times. Burial sites close to Sámi sacred places are often related to summer burials carried out on islands (Hamari and Halinen 2000, 165). The identification of burial islands in the research area is based mainly on toponyms, because burial islands have been insufficiently surveyed and studied (Ruohonen 2002, 33; Laakso and Ruohonen 2009). Dated burials from Savukoski originate from the late 16th or early 17th century, but burial on islands was probably practised already in the Middle Ages (Hamari and Halinen 2000, 165). The tradition itself may nevertheless, have pre-Christian roots; also in Sámi ethnic religion burials were made on islands (Schanche 2000). There are stories of people buried on burial islands near *sieidis*, for example, at Lake Pöyrisjärvi and Lake Näkkäljärvi. The connection between *sieidis* and rituals related to burials is also indicated by the fact that sometimes people were buried near their offering stones. Sometimes the burial was temporary in nature. For example, it is said that Podđus-Mihkala died during a migration, was buried for the summer in a pulk at the foot of a *sieidi* stone, and moved in the winter to a Christian burial ground (Äikäs 2015, 148). However, sometimes the summer graves that were meant to be temporary remained the permanent resting places of the deceased (Ruohonen 2005, 262–4; 2010).

All sacred places associated with burials are *sieidis* or offering places. In Haltioletto in Lake Jerisjärvi, the burials are on the same island that is thought to have been used for offering activities. There are two clearly distinguishable summer burials and 2–3 indefinable pits. In this case, the offerings may be related to the burials. According

to Audhild Schanche (2000, 283), offering places have had various functions, some of which have been connected with burial ceremonies. In Vesa-Pekka Herva's (2009) view, islands are associated with the idea of a liminal space where earth and water connect. The relationship of islands to liminality on the one hand and death on the other gave them a special status. Furthermore, the assumed temporary nature of island burials can be connected with the idea of liminality. Possible experiences of liminality both on burial islands and at *sieidis* may have created common meanings in people's minds. On the other hand, burial islands remained in use even after Christianity gained a foothold. In this case, the sacred places of the ethnic religion that were located nearby may have acquired new meanings. The coming of Christianity did not mean the disappearance of the old traditions.

Through trapping fur animals and selling furs, the Sámi formed contacts that may have provided them with Christian influences at a very early stage. Even though it has been thought that the Sámi kept their old religion at least until the 17th century, already in an early stage there were Sámi people with a deep Christian conviction. In the 17th century there were also priests of Sámi background (Kylli 2005, 12–16). In the 17th and 18th century the sacred places were in use simultaneously with the churches and offerings were brought to both churches and *sieidis* even in the 20th century (Itkonen 1910; Paulaharju 1932; Kjellström 1987, 24–33; Äikäs and Salmi 2013; 2015). Even today there are ritual practices at *sieidis*. Some of them are touristic in nature; in Taatsi tealights might be left by a local Shaman entrepreneur. Tourists are sometimes led to Sámi sacred places by road signs and information boards. For example Keimiöniemi in Jerisjärvi is a nationally important cultural landscape and a tourist attraction. Other visitors to sacred sites might include locals who wish to honour the ways of their ancestors. There are also marks indicating to new ritual practices: quartzite, pines, candles, and a tied bunch of sprigs have their comparisons in neo-pagan activities in e.g. Britain (Wallis 2003, 171; Blain and Wallis 2007, 10, 56; Äikäs and Spangen 2015).

Livelihood and dwelling connected to sacred places

Päivi Magga (2007, 11) has observed that the Sámi way of seeing and experiencing the landscape is closely tied to Sámi means of subsistence. The offerings given to offering places were connected to livelihood and in some cases, also the location of an offering place was related to subsistence strategies. Due to the poor preservation of fish bones, excavation finds are not necessarily sufficient for identifying fish *sieidis*. A location near water has naturally been considered as an important factor for the selection of fish *sieidis*. Paulaharju (1932, 10–11) notes that fish *sieidis* were often located on headlands, on islands, or deep in an inlet, the *sieidis* of river fishermen in a headland of a river bend or in rapids. The proximity of water is a typical feature of fish *sieidis*, although some fish *sieidis* that are located some distance from water are known (Äikäs 2015, 125). On the other hand, the proximity of water does not always mean that the *sieidi* would have been used in connection

with fishing. Furthermore, reindeer *sieidis* could be located on the shores of rich fishing waters where people migrated annually and where they also hunted wild reindeer (Qvigstad 1926, 318). The Lake Jerisjärvi has historical importance as a fishing place and it is still today considered as good fishing waters. Hence some of the offering places might be related to fishing activities even though there are no historical records of this.

The archaeological remains related to sacred places provide information on the relationship between means of subsistence and other activities and the ritual landscape. In most cases, there are no other ancient sites in the near vicinity of the sacred place. Of 107 sacred places, 79 had no other archaeological remains in the viewshed zone (Äikäs 2015, 127). The most common type of archaeological remains near sacred places are hunting pits and it has been argued that there is a connection between hunting pits and offering places connected to hunting (Vorren 1982, 58, 65–6; 1985, 79). Sacred places are located in the vicinity of hunting pits in the entire research area. At 43 sites, there is a hunting pit near the sacred place either in the distant viewshed area or within the buffer zone of 3000 m. A total of 65% of the sacred places in question are *sieidis*. The connection between sacred places, especially *sieidis*, and hunting pits seems to be a fairly common phenomenon, which is repeated over a geographically extensive area (Äikäs 2015, 127–33). Also in Jerisjärvi hunting pits were located in the viewshed area from sacred sites. South-west from Keimiöniemi, on a ridge c. 200 m south-west from the Särkilahti inlet, there are seven hunting pits. In addition, on Isosaari island there are hunting pits in two groups. In the middle of the northern part of the island there are nine hunting pits and west from these there is a group of four hunting pits.

However, spatial proximity does not necessarily mean cultural proximity. Proximity does not necessarily indicate simultaneous use because the datings from the hunting pits near sacred places witness of a substantially older, Stone Age use (Halinen 2005). The use of hunting pits is also mentioned in historical sources describing the area of Finland. Historical sources and contemporary writings relate that hunting pits were widely used in the 16th and 17th centuries. There are several mentions from the 19th century, although pit hunting probably became less important from the mid-17th century (Korteniemi 1990, 44–81, 116–20). Petri Halinen (1996, 59) considers that historical sources are related to people's tendencies to think of hunting pits in the landscape as belonging to themselves or their own past, for example, their grandparents, even though this might not correspond to the actual dating. In my opinion, extensive folk tradition still does not exclude the possibility that some of the hunting pits may have been used in historical times. Altogether, the dated hunting pits are notably older than the offering places. The large number of hunting pits near sacred places may be due simply to their large number in the entire research area. In spite of the uncertainty of the chronological connection between hunting pits and offering places, they may have had a functional connection. The same areas remained environmentally suitable for hunting for a long time. Hunting pits do indicate that

the area was important for hunting. This meaning may have been preserved in the landscape even during the period of use of the sacred places.

Sacred places are also associated with Sámi settlement. Homesteads are the third most common group of ancient sites located near sacred places. Homesteads are formed of groups of *goahti* foundations and housed an extended family or several families. The connection between sacred places and settlement is approached by determining the distance from the sacred place to the nearest homestead (Fig. 12.4). The areas of Inari and Utsjoki are examined especially closely, because homesteads in these areas are better documented than those in the more southern research area. However, it should be taken into account that some of the homesteads remain unknown to researchers. In 1931, Aarne Äyräpää (1931, 355) noted that Inari alone had more than 200 homesteads, whereas the research material from the same area only includes 30. The maximum distance to the nearest homestead was defined as 25 km, which included all sacred places in the research area. In the areas of Inari and Utsjoki, the distance between a sacred place and the nearest homestead is in most cases less than 5 km. Sacred fells are further away from settlement than *sieidis*. Sacred places near dwelling sites are usually connected to waterways and more often associated with fishing than reindeer husbandry. In the entire research area, the sacred places closest to settlement are usually associated with fishing. Among the ten sacred places closest to homesteads, there are five related to fishing, one to which both fish and reindeer have been brought, two related to wild reindeer hunting, and two for

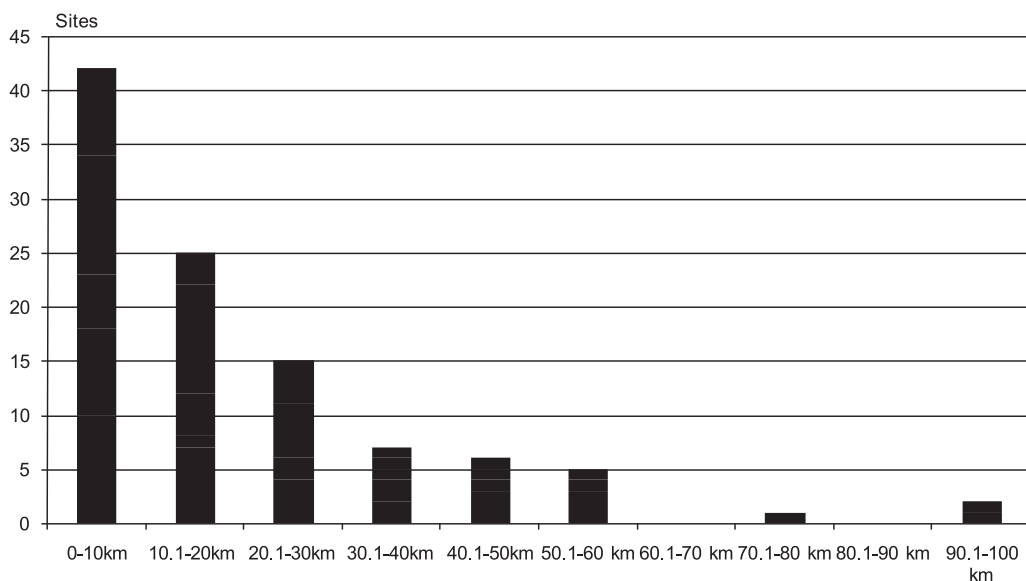


Fig. 12.4: The distance of the homestead closest to a sacred place in the entire research area (illustration: T. Äikäs).

which there is no information. Fishing trips could be made starting from the home shore, in which case the *sieidi* could also be located nearby, whereas *sieidis* related to reindeer husbandry could be located in areas related to this activity further away from dwelling sites (Äikäs 2015, 133–7).

Individual *goahti* foundations also indicate settlement. Sometimes the difference between a few separate *goahti* foundations and a group of them making up a homestead is not clear. Like homesteads, documented *goahti* foundations are also concentrated in the areas of Inari and Utsjoki. Sacred sites are mainly located near settlement in their case. The greatest distance of the nearest *goahti* foundation to a sacred place is 30 km. In Jerisjärvi, there are rectangular hearths within the viewsheds from Keimiöniemi, Isosaari, and Haltioletto. This type of hearths is interpreted to be connected to *goahti* or *lávvu* and in some cases they have been used for a long period (Valtonen 2006, 103). In Jerisjärvi, on Isosaari island there is one hearth with the size of 1 × 0.5 m but this has not been dated. From the southwestern part of the island extends a headland from which finds from historical period, e.g., an iron knife (KM 9631), have been found. According to tradition these might be related to Sámi dwelling. Another hearth lies on the western side of Jerisjärvi on the slope of fell Ulkuvaara. Its size is 1 × 0.8 m and it consists of 12 stones.

Within the buffer of Keimiöniemi, on the shore of nearby lake Särkijärvi is situated a homestead called Passisenkenttä. According to lore a person called Passinen moved to the headland either in the 17th century or in the 18th century. Now there remains a depression surrounded by an embankment which has been interpreted as the remains of a house (Krapu 2004).

Another homestead is located on the headland Keimiöniemi. There are altogether 17 fishing cottages and depositories which are of different age and some of them are still in use (Fig. 12.5). The history of the homestead began possibly in the 16th century when people from Tornio moved to lake Jerisjärvi to utilise its fishing waters. Keimiöniemi is located near the mouth of river Jerisjoki that was the main route of transport in those days. There are tax records from 1553 indicating the use of the waters. None of the first buildings have remained since the Russians burned down the homestead in 1592. Some of the cottages seen today were at least partly built in the 17th–18th century (Paulaharju 1962 [1922]).

However, when viewing all dwelling sites in the research area, *goahtis*, and homesteads were not in use at the same time. Thus, the distance to the closest dwelling site in use at any given time may have been greater than the overall data indicates. Some of the *goahtis* may have been in use in the Iron Age, but the dwelling type was used late into historical times (Hamari and Halinen 2000, 159). Some of the homesteads, are still used today. Sometimes the *sieidi* may already have fallen out of use when the homestead was settled. For example, Paulaharju's (1963 [1923], 156–61) description of the fish homestead on the headland of Keimiönniemi makes no mention of the *sieidi* located on the same headland.



Fig. 12.5: Fishing cottage on the headland Keimiöniemi (photo: T. Äikäs).

Ritual actors at Sámi sacred sites

There has been and still are different activities and actors connected to Sámi sacred places. The term *actor* means a person or community that acts. The concept of agency has been associated with the ability to make decisions that affect the surrounding world (Dornan 2002). Sociologist and anthropologist Bruno Latour (2005, 71–2) has emphasised how things do not only help people to act but are actors themselves as they make possible, allow and hinder actions. This is highlighted in relation to religious things to which people have an emotional relationship; these things can cure and bless but also deny and obstruct (Lynch 2010, 49–50). According to the relational worldview, actors at sacred places could be individuals or groups of people, spirits, deities, or even the *sieidi* itself. The *sieidi* stone itself could also sometimes act like something alive. It could move, eat offerings, smoke tobacco, laugh, and sing (Qvigstad 1926, 321; Paulaharju 1932, 22, 27; Itkonen 1948, 318). It could feel human emotions, such as pride, anger, and vengefulness (Paulaharju 1932; Manker 1957, 34). People could communicate with *sieidis* in various ways. The Taatsi *sieidi* answered offerers with a sound like jingling bells coming out of the stone (Paulaharju 1962

[1922], 138). The *sieidi* was also asked for advice by placing a hand on the side of the stone, in which case the hand was stuck to the stone and would not come free until the asker correctly guessed what would happen. Sometimes the *sieidi* appeared in dreams to give advice. The *sieidi* could also be punished by chopping pieces off it or by destroying it completely (Holmberg 1915, 31–6). It was thus believed that *sieidis* had many ways of acting in the world and communicating with people. Meals related to offering activities provided one way of communicating with the gods. It was believed that when people ate at offering places, it was the gods who were fed. The eaters themselves were left hungry, because the food went to the gods (Äimä 1903, 115; Paulaharju 1914, 5).

The connection between eaters and gods is one example of how it was believed that there were also actors other than people in offering places. Types of action could vary from carefully controlled rituals to personal encounters with the sacred. Individual persons could have their own ways of making offerings and meeting the *sieidi*. Sometimes offerings were spontaneous and unplanned, such as a coin tossed to a *sieidi* when passing by. Sometimes the ritual could be preceded by careful planning, such as choosing an animal of the right colour and waiting for the right time (Itkonen 1948, 313–4; Manker 1957, 47).

Animals were both objects of action and active actors in offering places. Naturally, action directed at animals was usually related to offering. The offering of animals could take many forms and be associated with various restrictions and rules. Sometimes the offered animal was left alive at the *sieidi* (e.g., Tuderus 1773 [1670s], 50). *Sieidis* were also associated with beliefs regarding the spirit of the *sieidi* itself, who attracted the animals to be offered to approach the *sieidi* (Mattila 1974, 136 referring to TKU 67/81:8, 67/84a:6). Other animals also visited the place. The smell of the offered meat and blood probably attracted predators. Dogs also could become interested in the offered bones. It is said that if a dog took bones from a *sieidi*, a bone of the dog in question should be buried at the *sieidi* instead of the offering taken (Manker 1957, 44, 76, 93). The surroundings of the *sieidis* formed a rule-bound environment that affected the lives and deaths of animals in other ways, too. According to Jacob Fellman (1906, 223–4), hunting near a *sieidi* was allowed only for people from the village that owned the *sieidi*, and any animal in the immediate vicinity of the *sieidi* was to be left untouched.

How taskscape contributes to understanding of Sámi ritual landscapes

The landscape surrounding sacred sites has been the stage of many kinds of activities. The concept of taskscape helps to understand how ritual and profane are intertwined in ritual landscape (cf. Insoll 2004). Not all offering-related activities were necessarily ritualised, and activities that seem profane may have acquired ritual meanings. According to Åsa Berggren and Liv Nilsson Stutz (2010, 184), rituality is not determined

by a certain way of acting but by the strategy or reason why people act the way they do. The spatial connection between sacred places and signs of human activity indicates that the sacredness of the landscape did not rule out activities related to means of subsistence and making a living from the landscape. Sacredness did not mean that other activities were prohibited. Various means of subsistence were practised near sacred places, for example, there were bird nesting trees and signs of fishing on the island of Ukko in Lake Ukonjärvi, as well as hunting or storage pits on the headland of Porviniemi in Muonio. Sometimes an animal shot near the *sieidi* was considered as a gift from the *sieidi*, and hunting near the *sieidi* was thus not disapproved of (Lounema 2003, 158 quoting Nils-Piera Labba). Sacred places may have been usage areas in which means of subsistence were practised much like elsewhere but that may have been associated with more controlled behaviour and restrictions. Sometimes, however, as stated above the near vicinity of the sacred place has been viewed as protected from everyday activities.

The effect of sacredness cannot thus be restricted to a certain way of acting. Sacredness was not always a restricting factor for action, and at the same time, sacredness was not restricted to offering places and *sieidis*. Activities other than offering could also be perceived as ritual and associated with contacting the spirits. For example, hunting in itself has been viewed as a ritual activity. Hunters were in contact not only with animals but also with the spirit world, and the difference between these two could be wavering. There were also rituals and rules related to the handling of the catch (Schanche 2000, 237–8; Mulk and Bayliss-Smith 2006, 56). For example, handling meat could be forbidden to women in some cases (Ervasti 1956 [1737], 13–14). Beliefs were associated with hunting and fishing, but also with, for example, haymaking (Paulaharju 1914, 24).

Different tasks in the landscape are sometimes performed by different groups of people. These places are given meanings even today. Modern activities in sacred places may also be associated with both spiritual and other aspects. Archaeological finds provide information not only on modern offerings, but also on camping and hiking, related to which we have found pieces of a thermos bottle and an energy drink bag at the sites. On the other hand, during a hiking trip, a person's relationship with nature may be experienced as spiritual. Activities organised for visitors to *sieidis* may include eating, praying, meditating, conversation, and healing. Thus, offering places were, and are, the stages of a wide variety of activities charged with various meanings that are not fully covered by written sources.

During the long life history of these places they have become filled with memories. Ritual activity was associated with elements of continuity and remembrance. The prominence of old offerings could link today's rituals with those performed by the ancestors (cf. Lucas and McGovern 2007, 24–5). As time went by, visual reminders of past activity could disappear, but people visiting the place still felt a connection to the customs and traditions of their ancestors. Knowledge of rituals taking place at

the *sieidi* is transmitted as oral tradition when visual reminders are long since buried. At the same time, new forms of action are created that reinforce continuity through changed meanings. A visitor today may see coins or candles that indicate others too have visited the *sieidi*.

The taskscape can be viewed as being full of religious meaning. Subsistence, ritual, and social contact interacted with each other. Making a living was not divorced from myths, religion, and cosmology. Rituals were linked to subsistence through rules and beliefs related to hunting, for example, and through interaction with spirits that affected animals. *Sieidis* and spirits, not just other people, belonged within the sphere of other social interaction. There has thus been no clear division between sacred and profane. Everyday activities have been carried out near sacred places, but at the same time, sacredness has formed a part of everyday life. In the landscape, the sacred and the profane are intermingled.

This paper describes the Sámi ritual landscapes in Finnish Lapland. The Sámi cultures and religion has taken different forms in different areas but there were some common features as well. Hence the results of this article emphasising the relationship between sacred and profane activities as well as different actors related to these places are worth considering when discussing other Sámi cultures. Similar studies of ritual behaviour in other Sámi areas could detail similarities and differences between different cultures.

Notes

1. Yoik (also spelled joik) is a traditional Sámi form of song which is often used for remembering *e.g.*, people and landscape. Yoiks can be deeply personal or spiritual in nature and they reflect the persons and places of which they are about.
2. Visibility analysis is used for studying the cognitive and social landscapes of past people but it has also been criticised for its emphasis on visual, see Äikäs 2015, 92–3.

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Chapter 13

The secret taskscape: implications for the study of Cold War activities

Bob Clarke

Introduction

When Tim Ingold wrote 'The Temporality of the Landscape', published in 1993, it was against a backdrop of emergent political change across the world. Whilst this was purely coincidental it has, nonetheless provided the contemporary archaeologist with a series of lines of investigation from which later historic periods can be studied and interpreted. Ingold (1993, 152) reminds us that 'the landscape is constituted as an enduring record of – and testimony to – the lives and works of past generations'. This is brought into sharp focus when one considers the lifecycle of an activity or organisation that leaves behind evidence of its existence on the landscape. That landscape becomes part of us in Ingold's eyes (1993, 154), a kind of cartography of our daily lives (Ingold 1993, 155). That 'map' is populated by sight and sound, physical markers through material culture and the structures, once imposed on, but increasingly with age, considered part of the landscape. Naturally activities can be investigated chronologically, indeed this is the primary method of investigation for those who study the landscape. Temporality of the landscape is offered, through an array of multi-period, interlocking activities that, when considered together offer a conceptual reality, the taskscape (Ingold 1993, 158).

The taskscape has become a necessary interpretive component when considering human endeavour, no more so than when considering the archaeology of Cold War Britain. By its very nature the Cold War maintained a level of subterfuge. Activities of a secret or clandestine nature, acted out by those who were initiated into its orders, segregated the general populous from major decision making. In the Western World this forced increasing tensions between public and state, manifesting itself in civil disobedience or apathy and disenfranchisement. Now, just over two decades later, we have an opportunity to investigate the secret landscape of the Cold War.

Towards an appropriate framework

The study of military landscapes is a complex process. Much has been written about the extent of the material culture, especially architecturally based, since the end of the Cold War in 1991 (Clarke 2005, 243). The rapid collapse of the Soviet Union and client governments across Central Europe instigated a large reduction of military forces throughout the Western World. In the wake of this many secret sites are now being revealed for the first time and made available for archaeological scrutiny. As with other streams of contemporary archaeology, the study of the Cold War requires an interdisciplinary approach (see Harrison and Schofield 2010 for an expanded discussion on this) to be effective; this is certainly so when considering this particular period. In his seminal work *The Secret State*, Peter Hennessy (2003, 3) noted ‘... the Cold War neither socialised large numbers of people into its disciplines, rationales and complexities nor did it, in the modern argot, give them a sense of ownership or outcome’. This succinct statement characterises the perception of the Cold War in the United Kingdom. It also helps to expose the lasting schism between the general public and the Government, especially if one considers the development, deployment or aftermath of nuclear weapons. The public’s view is one emphasising the secret activities enacted behind a veil of Government misinformation; to discuss the Cold War including its social implications and archaeological landscape, an appropriate level of site preservation is needed. This, in turn, requires a holistic framework from which to construct a multidisciplinary paradigm.

Nature of the problem

Expanding the thoughts of Peter Hennessy, the Cold War is almost universally recognised as a Government-centred activity. A period where the majority of the populous on the planet was excluded from major ideological activities that simultaneously placed them on the front line of a potential nuclear war. Naturally the role of the military and para-military organisations looms large in any literature review of the period. Indeed, so much so that a number of works purporting to be a ‘history’ of a military site fall into the trap of discussing just the regiment or squadron stationed at the base. This is often at the expense of a recognition of a site’s impact on the surrounding landscape, or the history and prehistory of that piece of landscape prior to – and post- the bases construction. Furthermore, the recognition of civil protest and, later acts of civil disobedience, receive little or no mention at all. Now, over two decades later, it is near impossible to recognise this inferred segregation of the public from the majority of Cold War sites. It is at this point that the application of Tim Ingold’s (1993) paper ‘The Temporality of the Landscape’ becomes increasingly appropriate.

Applying the structured components of ‘The Temporality of the Landscape’ it is possible to construct a framework allowing both the ‘socialised’ and the ‘disenfranchised’ to be acknowledged in the same arena. Moreover, those who participated in the development of the defence landscape, moving through their

own, and the organisations life-cycle, are still available for comment. Engaging with those who were members of government sponsored secret organisations, protest groups or the general public allows for a hitherto un-narrated recognizable account of a taskscape now made visible.

Discussing the landscape of the Cold War as an archaeological entity is in its infancy; many scholars are still in the initial stages of recording both structures and personal narratives (see Carman 2013 for a full discussion). What is clear is that to provide both an adequate management plan for any sites identified as worthy of preservation requires a holistic approach, it is not enough to consider just the monument beyond the fence. When considering the evidence for activities encountered, or suspected, on sites such as military bases Ingold offers a starting point, one that provides a framework of neutrality. The concept of temporality allows us to recognise something of the life-process enacted within a specific area of landscape, paying no attention to the clutter of modern military or governmental control ensures we view the landscape both holistically and objectively.

Work since the end of the Cold War has demonstrated that a perceived landscape of security fences, misrepresentative signage and inaccurate map designations intended to mislead the user does, in fact, represent an array of defence related activities (Cocroft *et al.* 2003; Clarke 2005; Schofield *et al.* 2007; Carman 2013). Moreover, of all the sources of tension between those initiated into the processes of the Cold War (mainly signatories of the *Official Secrets Act*) and those not, two things stand out. Nuclear weapons, including their continued presence in the United Kingdom, and the construction of bunkers, irrespective of intended use. From the 1950s until the end of the Cold War, both became the focus of public opposition, so much so that the protest and peace camps erected around RAF Greenham Common, Berkshire became an internationally recognised landscape of both protest and radical feminism (Fiorato 2009, 142; Titcombe, 2013, 310). In the following case study I utilise Ingold's (1993, 156) thoughts on the recognition of boundaries focussing on their meaning to different groups whose origins can be traced from the same standpoint, and the methodologies employed by one specific group to render the effects of a perceived boundary impotent.

Case-study one: Boundaries

Central to any discussion concerning the Cold War, or indeed any military site in Europe, has to be the most obvious of landscape features, the perimeter fence. Intended by its constructors to be a physical and psychological barrier, the perimeter fence surrounds an area of landscape where those who are not initiated into the activities carried out in their name by those beyond the fence are excluded. Fences allied to military installations take a number of forms and are manufactured from dominant materials such as steel chain link, supported by robust concrete posts often 2 m high, topped off with barbed and, later, razor wire, all with the intention of intimidating and deterring attempted access.

Close up the view of any activity is obscured by the thick chain link – further conveying a feeling of intimidation, control and intent to those who encounter it at this immediate level. However, the concept of ‘the fence’ as a method of control provides us with a visual dichotomy. The further away from the fence you move, the quicker the fence blends into the landscape, losing both its self-imposed authority and impact. This is important. Ingold (1993, 156) reminded us that boundaries are merely features of the landscape, it is only those who engage with such features that force an authoritarian interpretation on them. A simple study allows us to recognise the validity of Ingold’s thoughts.

While fences surrounding defence related structures or sites were intended to promote a sense of authority, enclosure and exclusion, it is clear that those who performed acts of civil disobedience at a number of Cold War facilities throughout the 1980s thought otherwise. The protracted peace protests around RAF Greenham Common and other, nuclear related, bases, between 1981 and 2000 witnessed anything other than an acknowledgement that the perimeter fence was an instrument of exclusion (Fig. 13.1). Recently, John Schofield suggested a number of juxtapositions are relevant when reviewing the role of the perimeter fence at Greenham Common, all (public space/private space; civilian/military; life/death; hope/fear peace/war and probably most appropriate female/male) are reinforcing the concept of a barrier on the landscape (Schofield 2009 107). A number of actions around the base by women from the Peace Camps support these concepts, however, look a little deeper and three distinct activities are recognizable, all of which remove the perimeter fence and/or its immediate effects through transformation.

Embrace

Late in December 1982, over 30,000 women and children took part in an action called ‘embrace the base’ (Ruddock 1987, 72). The 9 mile (14.5 km) perimeter fence was totally surrounded in what was called at the time ‘a loving embrace’ (Laware 2004, 29), the intention being to remove the physical impact of the perimeter fence by replacing it with a humanistic, overtly female, barrier. Interestingly what actually happened was that the perimeter fence was replaced by another barrier, this time constructed by the women themselves, access in and out of the base was blocked as a result. Whether this was the intention is unclear although the action certainly made the event all the more newsworthy. More importantly the women removed the effectiveness of the perimeter fence, relegating it to a secondary landscape feature, partially obscured by the women themselves and simultaneously removing its perceived authority. This action saw a complete reversal of the roles enacted at Greenham Common, the official perimeter fence being replaced by a temporary, yet just as effective ‘people’ fence. What started out as an attempt to neutralise a physical barrier led to the imposition of a new form of barrier, one that could not easily be removed. This dichotomy did, for a while, mean that those whose taskscape included the protection and operation of nuclear weapons – in the form of cruise missiles – became restricted by those demanding openness and freedom.



Fig. 13.1: The perimeter fence as a landscape obstacle. A British police officer confronts a group of anti-nuclear demonstrators attempting to gain entry onto the Greenham Common air base during the arrival of Ground Launch Cruise Missile equipment (SSGT James Pearson: DF-ST-84-08464; by permission of the US Department of Defense).

Breach

The perimeter fence became the focus of a number of activities throughout the 1980s, not least the 'breaching' of the landscape feature. One action in late October 1983, saw nearly 4 miles (6.4 km) of the 9 mile (14.5 km) fence cut down (Laware 2004, 31). Activities, under the cover of darkness, required specialist tools such as wire cutters and heavy duty pliers. This is clearly an overt challenge to the excludatory nature of the major landscape feature, removing the fence having both a symbolic and visual effect; this was followed by more localised activities. At a number of locations around the base, small sections were cut from the fence, allowing protestors to access the base

and enable them to carry out acts of vandalism (Laware 2004, 34). Here the challenge was not specifically aimed at the fence, more the fence was simply a point in the landscape to cross. The activity required planning, where to place the most effective breach, distance from the fence to structures and facilities on the base, time of day in which to act, *etc.* What it did not do was consider the perimeter fence a barrier, more a feature of the base landscape as a whole. Here the relationship with the fence is more covert, almost a mirror of what the government was accused of rather than an overt challenge to the male dominated world of nuclear warfare. Evidence for this still survives in sections of retained fences around parts of the now redundant base (Schofield and Anderton 2000, 248).

Decorate

As soon as the peace camps were founded the perimeter fence became a 'canvas' for artistic expression. The chain link providing a large framework for darning – many intricate designs being fashioned including the peace symbol, names and the female gender symbol – reinforcing the overtly female intent of the camps surrounding the base (Welch 2010, 232). Here the initial interpretation of the fence as a barrier is neutralised by providing a different function for it. The fence assumes a benign existence similar to the wall in the museum or art gallery; its only immediate function to act as a backdrop for the exhibit or artwork hung upon it. Furthermore, to hang items on the fence removed the buildings, aircraft, missile silos and armed guards from view, much as the wall in the art gallery is obscured from view by artwork suspended in front of it.

Considering all this it becomes clear that, from the protestor's point of view, the perimeter fence at RAF Greenham Common had more than one meaning projected on it; every action the women undertook neutralised or lessened the immediate, intended, impact the fence projected. This demonstrated that a fence line can, indeed, become a variety of landscape features purely by the projection of a group or individual act. Ingold (1993, 156) stated 'it is important to note that no feature of the landscape is, of itself, a boundary'. The morphing of such a prominent landscape feature, at the point of encounter, into something benign, a backdrop to activities in the wider arena of protest, demonstrates that in the taskscape of protest a series of landscape features have a level of fluidity through physical activities enacted with and around them. To suggest the perimeter fence is a clear demarcation between two activities is clearly wrong in this case. Today, substantial lengths of fence survive, some of it included in the scheduling notice for the main GAMA site (the area that housed the cruise missile flights). In point of fact, the very act of providing the perimeter fence with statutory protection allows us to now include heritage professionals in the taskscape of this unusual but important aspect of Britain's Cold War. The intent is now to display the landscape of the Cold War through its stark architectural components, and so, for the time being, the fence has returned to its constructors intended interpretation – a fence surrounding a specific landscape.

Case study two: Sight and sound

A number of groups inducted into the processes enacted by state and military provide a rich source of material for the landscape archaeologist. One, the Royal Observer Corps (ROC), straddled the divide between the military and an increasingly disenfranchised public. The ROC was a mostly voluntary – spare-time – organisation that has its origins in the First World War (Wood 1992). During the Second World War, the ROC became an integral component of British air defence, complementing the radar network still in the early stages of development. On 12 May 1945, with victory declared in Europe, the ROC, like so many other voluntary services, was stood-down (Clarke 2014, 242). Just 18 months later, the ROC was reformed, primarily as a reaction to the land transport blockade imposed by Soviet occupational forces stationed around the city of Berlin from mid-1948 (Clarke 2007). The late 1940s experienced a rapid increase in military spending, especially on the development of specialist technologies such as jet aircraft, radar and nuclear weapons development (Cocroft *et al.* 2003). Unfortunately, radar coverage inland was to remain poor for many years – the only answer was to reinstate the Royal Observer Corps network of visual and audio reporting.

To be effective the Air Ministry required 1800 observer posts equally distributed across the whole of the United Kingdom. From these posts, a mix of locally built architectural types, ROC crews visually scanned the skies from the horizon to vertically above the post; they also listened, as often the sound of the aircraft's engines was the first indicator that an intruder was in the area. In 1951, the Air Ministry requested tenders from industry to provide the ROC with a purpose-built structure capable of sheltering crews from the elements, while still providing a steady level platform for tracking instruments. Over the next 5 years (1952–1956), 41 Orlit posts, as the structures became known, were constructed where existing Second World War buildings were deemed unfit (Clarke 2014, 242). The Orlit post is the first structure designed and constructed in the British landscape that has a purely Cold War origin (*ibid.*, 25).

During 1955–6, a secret committee comprising senior civil servants and members of the armed services assessed the potential danger of a new and more powerful weapon, the hydrogen bomb. The committee concluded that a small number of the weapons targeted on the western seaboard of the United Kingdom would devastate large parts of the country, primarily through radioactive fallout (PRO DEFE 13/45). As a direct consequence of the report, the aircraft observation tasks of the Royal Observer Corps were abandoned in favour of fallout monitoring. This change of role required new protected facilities, subsequently over 1500 Underground Monitoring Posts (UGMP) were constructed across the United Kingdom (Fig. 13.2). The UGMP was, where the geology allowed, buried at least 4 m underground to protect the small control room (5.8 × 2.6 m by 2.3 m high) from blast and radiation. A number of instruments were located on the surface to monitor blast power, radiation and direction and height of detonation; the post crew, usually three observers, telephoned the information to



Fig. 13.2: An operational Underground Monitoring Post c. 1966. The world of order inhabited by the volunteer observers during their nuclear monitoring role is in stark contrast to the world now encountered by the casual visitor (image courtesy of Malcolm Holland).

a group headquarters, who, in turn, informed the military and Home Office of the developing situation in their geographical location (Clarke 2005, 148). The entire network was stood-down in September 1991.

Archaeology

The Royal Observer Corps has a complex archaeological presence in the landscape. The function of the organisation is not readily recognizable from the extant archaeological remains or the material culture now available for scrutiny, indeed the majority of the ROC's operational framework remains an under investigated component of both the British Cold War and military landscape. As with other late 20th century organisations, current research appears to rely on the construction of narratives covering the organisations operational role with passing regard for the archaeological context. Two reasons stand out.

The organisation is still within living memory, potentially offering the historical researcher the opportunity to investigate the social life-cycle of the organisation, yet access to former members has proved difficult. The organisation was unceremoniously

stood-down in September 1991; since then majority of the former members have become increasingly hostile to the event, displaying classic disenfranchisement (Scham 2001, 186). Recently a vibrant association has developed with more openness towards both the stand-down and the researcher investigating the operational aspects of the once secret organisation. The implications of this has meant almost two decades have passed between stand-down and the chance to capture the operational and social aspects of the ROC. It also means the physical landscape of the ROC remains under-investigated.

Experiencing the physical remains of the ROC is both confusing and difficult to interpret; recently John Schofield (2011, 166) described certain aspects of the Cold War as 'encoded places', places that can only be fully understood once all the pieces are assembled (documentation – including operational components and, possibly personal accounts). Encountering an Underground Monitoring Post out in the field often provides no clue as to what or why the small concrete structure is where it is. Very few are marked by Ordnance Survey; however, with the rapid development of internet interest groups such as Subterranea Britannica or the Fortress Study Group, the location of many posts has become better known. This said, posts are always encountered in isolation (the network dictated they were constructed at least 7 km from one another), and subsequently are interpreted as such.

On the rare occasion access to an Underground Monitoring Post is possible the visitor encounters a subterranean world devoid of much of the material culture of the organisation or the temporal periods of its operation. Often, the control room has a few centimetres of stagnant water in it, is covered in graffiti and on occasion has also been on fire (Fig. 13.3). It offers no opportunity to interpret the function of the post, the implications of that function had war broken out, nor the life-cycle of the organisation or the volunteer observers whose temporality this space depicts. Those sites that are protected are few and far between. In the south-west there are only two posts, Varyan, Rosedale in Cornwall, and Savernake, Wiltshire that are still in prime condition and curated with education in mind. A further small number are now in private ownership; however, over 20 years after standdown, equipment and other examples of the material culture of the organisation are difficult to find. The earlier Orlit posts are even more poorly represented and, subsequently, even more difficult to interpret without an understanding of the function. This author is not familiar with any extant Orlit post that retains all original features; indeed, the situation is such that in some counties there are no extant examples (Clarke 2014, 241). The remains of Orlit posts are often no more than four walls enclosing a rectangular area 3.05×2.03 m, and a small covered area with a few wooden battens screwed against the wall. The enclosed walls provide no hint as to the structures intended function, nor the operational aspects of the tasks undertaken within the walls. It is to these earlier structures that I now turn. The following case study applies Ingold's thoughts on hills and valleys and people – specifically sight and sound – to the study of the Royal Observer Corps' role in aircraft identification and reporting.



Fig. 13.3: Avebury Underground Monitoring Post 2013. Over two decades of destructive visitors have rendered it impossible to interpret the function of the post, or activities undertaken by the observers. Compare this to Fig. 13.2 (photo: B. Clarke).

Aircraft reporting (1950s) – sight

Of all the activities undertaken by the Royal Observer Corps throughout the Cold War one remained constant – observation. Up to the late 1950s, visual and audio aircraft reporting was the primary task, post-H bomb the key function remained observation even though the corps members had moved underground. Both can be explored through Ingold's work. If we consider the taskscape of the observer in 1950, armed with a pair of binoculars, scanning the skies for invading aircraft, a range of parallels become clear (Fig. 13.4 and 13.5). Each post was positioned in an elevated location, making use of the surrounding topography to increase the vantage point. Ingold (1993, 166) discusses the hills and valleys, in this particular case the limit of the observers field of view, as a kinaesthetic experience where 'the contours of the landscape are not so much measured as felt'. The task of visual detection is not a static one, it requires motion by the participant. The ROC post is placed centrally to a section of landscape, it is then the observer's job to monitor the surrounding area. This requires movement through 360° at the horizontal and 180° vertically from horizon to horizon, effectively a dome of observation above the ROC post. The observer moves head, eyes, arms and body through any combination and direction in



Fig. 13.4: ROC observers visually tracking a pair of Gloster Javelins acting as intruders on an exercise in 1958. They are stood inside an Orlit Post (original picture taken by Press Associates 1958; image is now part of the author's collection).

a search for aircraft and in so doing experiences the hills and valleys on the horizon. This concept, then, adequately describes the activities of the Royal Observer Corps when in the aircraft reporting role, unfortunately it does not provide for the piece of sky that the observer is scanning. For convenience I now introduce *the skyscape*. The skyscape is that area of sky that is bound by the horizon and ends directly above one's head. To experience the skyscape one employs Ingold's (1993, 166) kinaesthetic model however, the experience of the hills and valleys is secondary to the utilisation of the space known as skyscape. Hills and valleys have no meaning for the observer beyond limiting the field of vision, the role of the observer is to monitor 'in' the sky. This concept is underpinned by the fact that aircraft, by their very nature, also inhabit this space when flying. Subsequently, any hostile aircraft over the United



Fig. 13.5: The 'eyes and ears' of the Royal Observer Corps. Here, demonstrating that the ROC was not a gender specific organisation, W/Obs. L. F. Gaylord using both visual and audio detection to locate aircraft (original picture credit Chris Ware 1950: Keystone Press Agency Ltd; image is now part of the author's collection).

Kingdom would have been operating within an ROC post's skyscape, with an observer at each ROC post's centre. The taskscape of the observer can be recognised if we apply the additional concept of the skyscape, a workplace above the landscape. This is appropriate as the ROC was not concerned with any terrestrial activities, although the terrain does limit the extent of the activities they are monitoring.

Aircraft reporting (1950s) – sound

Aircraft, by their very nature, are noisy; they are also recognizable by their engine note; a rather obvious example must be the Rolls-Royce Merlin and its long association with the Spitfire. The mere sound of the Merlin stirs emotions well beyond the technological interpretation, visions of war, patriotism and bravery are associated with the note. It is chronologically 'charged' as often the Second World War and, more specifically, Battle of Britain are instantly associated with the experience. This

phenomenological aspect should not be a surprise; indeed Kirby (2008, 23) notes 'Our perception of things and events, experienced, interpreted, and then communicated to others, form our history, our culture, our world'. The medium of sound was another aircraft detection method utilised by the Royal Observer Corps and, in many ways, this was more important than the visual aspects of the organisation.

Ingold (1993, 170) notes that 'the air is full of sounds of one kind or another'. This rather obvious statement masks the true nature of the audio taskscape. Sound, unlike sight, is an all-encompassing experience. For example, you cannot see the car approaching from behind, but you can hear it; you may optically focus on the footballer scoring the goal, but you hear the roar of the attendant crowd when the ball hits the back of the net. The point is we are immersed in sound; it is a constant backdrop to everything we do. We may create sound, like the drop of a hammer in a workshop, but it is accompanied by all the other sounds being generated in that same workshop.

The recognition and identification of an engine note was a critical part of the observers' role. Unless the aircraft was traveling at supersonic speeds, which would have been unlikely in the early 1950s, the engine note aided estimating the height and direction of the approach. The observer would then search that quadrant of sky to detect visually the incoming aircraft. While the aircraft, if detected, becomes the visual focus of the observer, they are still immersed in 'localised' sound. Ingold (1993, 170) suggests that the entire cacophony, everything from village voices in the distance to those eating under a tree next to you, is a taskscape. While this might be correct as a generalised snapshot for someone traversing the countryside or walking through town, it does not allow us to recognise nor adequately explain the specific activities of a specific group. When considering the ROC observation tasks in the audio sphere, it is appropriate to refine the proposal. There are two specific regions of audibility: Low Level – immediate background sound, and High Level – task-focused sound.

Low-level

Low-level sound is the sound we are all immersed in as we undertake our daily work, or when we are carrying out a specific task. The sound could be task-specific; in the case of the observer this might be the other members of the team making a cup of tea, operational chatter between team members, radio transmissions from the group HQ via a loud speaker, or the clanking setting up equipment. It might as easily be the passing car, the conversation between a member of the public and one of the observers. One post in Devon is located on a golf course; this too would introduce task-specific sounds for those playing, juxtaposing with the sounds from the post generated by the observers. The point is low-level background noise, conforming to Ingold's notes (1993, 170), does indeed offer a taskscape, it is however, a backdrop to the lives of those who hear it. To those engaged in the minutiae of the process all other sounds are also background noise, and so are filtered out subconsciously.

High-level

High-level sound can be directly attributed to the primary task of the organisation, group or team. In the case of the ROC, this is the engine note of the aircraft, but might well be the call of another observer drawing the attention of others to a specific location in the skyscape. The engine note is being specifically hunted out by the observer; all other sounds in their immediate location are subconsciously filtered out. Once located, the observer uses visual references to report the aircrafts location, heading and height. The important point to make is that the observer team may not visually spot the aircraft, however, the engine note information will still be passed forwards as it too provides direction, type and rudimentary height readings.

Drawing together the concepts of hills and valleys, sight and sound, we can suggest that Ingold provides a framework from which further investigation into the behaviors of certain groups can be investigated. This is specifically so when looking at the taskscape of secret organisations. The role of the observer in the defence of the United Kingdom was, as far as was possible, a clandestine undertaking, requiring the volunteer to be inducted into the organisation through the signing of the Official Secrets Act and attendance to official courses. Now, over two decades later, the majority of members still hold true to that official code of silence. Using parts of Ingold's paper it has been possible to expose something of the taskscape of the early Cold War observers. This basic case study into the world of the Royal Observer Corps in the pre-hydrogen bomb era (1950s) has demonstrated that rather than blindly accept or discard concepts, we should be receptive to the framework they offer. Furthermore, we should not be afraid to complement them with new theories.

Conclusion

The most important question asked of any theoretical work over 20 years old has to be whether the work still holds relevance; does it provide the researcher with the tools needed to appropriately investigate the world around them? In this particular case, the concept of taskscape is one of a number of theoretical frameworks that can be employed to construct narratives of landscape components. It could, of course, be argued that such an approach is at odds with Ingold's view; he postulates that the archaeologist, when probing specific layers of activity are in danger of adding their own layers in the process (Ingold 1993, 172). This may be true, though we should, as investigators, be able to modify the tools to hand – often in ways not envisaged in an original concept. The possibility of what we now see as a relic landscape connected to, and driven by, nearly 45 years of ideological political posturing becoming available for investigation was unexpected; the landscape is complex, difficult to interpret, has many stakeholders and, probably most importantly, is already incomplete.

Applying components of 'The Temporality of the Landscape' to two very different situations it has been possible to demonstrate that the paper does, indeed, offer a framework with which to study aspects of the Cold War. We should not be afraid to complement given concepts, as, with slight modification, parts of the theory first offered two decades ago retains relevance. When aspects of the peace camps, and more specifically acts of civil disobedience, at RAF Greenham Common are considered it is clear Ingold's (1993, 156) discussion regarding boundaries is invaluable. He forces us to maintain an objectivity in their study, demanding that we strip away concepts of security, authority and demarcation. It is only when these are removed that we can fully recognise that many activities 'around' the perimeter fence neutralised its authority, simply relegating it to the status of a landscape feature. In the case of the Royal Observer Corps, 'The Temporality of the Landscape' enables us to populate the organisation beyond the operational manual and humanise the once secret task enacted there. It also allows us to empathise with the observers who stood on a specific spot, day and night, searching for enemy aircraft expected to be carrying nuclear weapons. We also gain an understanding of the concerns of the nation at a time when nuclear war was, for many, a real fear. The framework offered by 'The Temporality of the Landscape' allows us to glimpse the secret world through elements of a taskscape made visible via a series of physical and cognitive acts. Those secret landscapes, whilst transitory, require study and interpretation if we are to maintain an appropriate level of extant archaeology in the landscape. It is only then that generations to come will be able to interpret and experience the secret past of their ancestors.

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Chapter 14

Excavating a taskscape, flowscape and ceramiscene in the Black Country

Matt Edgeworth

Introduction

This paper narrates the story of an archaeological excavation of a pottery production site as it unfolded through time. The site was on the outskirts of the historic core of the town of Wednesbury in the Black Country. A team from Birmingham University Field Archaeology unit carried out the work in a two month period from September to November, 2006, in advance of the construction of a filling station and supermarket.

The concept of the taskscape (Ingold 1993) is well-known and needs little introduction. As Ingold states: ‘just as the landscape is an array of related features, so – by analogy – the taskscape is an array of related activities’ (Ingold 2000, 194). The idea of the flowscape originates in the context of a study on the archaeology of rivers (Edgeworth 2011), but can equally be applied to land sites as well as to rivers and streams. It is most at home within a holistic landscape (or townscape) archaeology which includes rivers and other material flows as well as more ‘solid’ archaeological entities. As will be seen, a flowscape may be a taskscape, and a taskscape may be a flowscape. Following Ingold’s definition of taskscape, it might be said that:

‘just as the landscape is an array of related features and the taskscape an array of related activities, so the flowscape is an array of related material flows that move through landscapes and may be channelled to fit the requirements of taskscape activities’.

Of course all these various aspects of landscapes intersect, with the different terms being useful to emphasise specific aspects of the same environment or landscape setting.

Ceramiscene (Mills and Rajala 2011) is a concept that originates in ceramic studies and provides a framework for understanding another extremely important aspect of all those archaeological sites where pottery is present. It is of particular use with regard to pottery production sites such as the one we excavated at Wednesbury. For

me (and here I may be taking the concept beyond that which its originators intended) the ceramiscene is a variant of the taskscape and flowscape, with emphasis on the raw materials, transitional materials, waste materials and finished products of the pottery production process. I should point out that I speak not as an expert in archaeological ceramics, but rather as a field archaeologist who deals with pottery out in the field, and occasionally gets the opportunity to excavate a pottery production site. I adapt the ceramiscene concept to my own devices here.

From now on when the term taskscape is used in this paper it can be taken to overlap with the associated notions of flowscape and ceramiscene.

Intersections of contemporary and past taskscapes

It was a very wet and cold autumn, with much rain. Wet conditions were accentuated by the fact that natural subsoil on the site was heavy and impermeable clay. The site was not poorly drained, however, because there was a marked slope from north to south – a drop of at least 2 m over a distance of 40 m – as land dipped down into the valley of the nearby River Tame. This meant there was a flow of groundwater run-off crossing the site for much of the time we were working, and this turned out to be not unconnected with past flows of water. As excavation proceeded, yet another kind of material flow manifested – in the form of huge quantities of ceramics which had to be collected, processed and transported from site to base. It is worth noting the outset, then, that the terms ‘taskscape’, ‘flowscape’ and ‘ceramiscene’ are applicable to the site of the production of archaeological knowledge in the early 21st century as well as to the landscape of pottery production that existed here in the 16th and 17th centuries. The concepts are not just to be applied to a past landscape inhabited by potters. Archaeology is a craft practice (Shanks and McGuire 1996) with its own tools, materials and products. The site of excavation is a taskscape, flowscape and ceramiscene inhabited by archaeologists. As Ingold (1993, 152) puts it ‘The practice of archaeology is itself a form of dwelling’. The intersection between past and present taskscapes will become clearer as the story of the excavation unravels.

Being located to the south-west of the historic core of Wednesbury, bordering onto the north-east side of Holyhead Road, heavy road traffic ran along one side of the site. There was quite a different sort of activity on the other side. Just beyond the perimeter fence of our excavation, mobile drill rigs relentlessly pumped liquid cement into old coal mining shafts. The drilling work was very noisy, necessitating the wearing of ear protectors at times, with reverberation felt as vibrations coming through the ground. This background activity served to remind us that the site, itself a contemporary taskscape, was surrounded and even underlain by other types of taskscape, some of them taking place in the present day (the drilling and pumping), others surviving as traces of human action in the past (the disused coal mines), and that these are interconnected.

Returning now to the taskscape of excavation, it is important to briefly outline what happened prior to the full excavation. A number of trial trenches had been excavated by machine in the surrounding area over the preceding weeks. Most of these contained nothing earlier than 19th century features and finds. One trench, however, contained at least one possible kiln and several pits filled with pottery wasters (broken or spoiled pottery, rejected and dumped by the pottery manufacturers) together with a hearth rake-out deposit containing large quantities of wasters (Krawiec 2006). These were thought to be early post-medieval in date, fitting in with other evidence of the Wednesbury pottery industry (Hodder 1990–1) and further industrial activity in the vicinity (Belford 2010). A decision for open area excavation was made as a condition of planning consent, and the full excavation was designed to investigate the area of greatest concentration of artefacts and features.

Figure 14.1 sets the scene for the narrative which follows. It shows the early stages of excavation. Foundations of a row of terraced houses with deep cellars had already been recorded running alongside the road. These houses had been built on top of a substantial layer of 18th–19th century made ground, consisting mainly of dumps of ash and other waste material from a nearby forge, extending across the whole site. It became apparent that the slope of the ground was once much steeper than it is today, and that the ground had been heavily made up with imported material to make



Fig. 14.1: An early stage of excavation, with archaeologists clearing away later deposits to come down onto the top of ceramic-rich 16th–17th century layers (photo: M. Edgeworth).

it more level. In the foreground, much of this black ash and cinder layer just been machined away. In clearing the last of this with handheld tools, archaeologists were coming down onto the upper surface of ceramic-rich 16th–17th century layers – a surface characterised by large red areas containing large amounts of pottery wasters and burnt material probably raked out from a kiln.

Incidentally, the advertising slogan on the bus speeding past at the very moment the photo was taken – ‘The future’s a thing of the past’ – is entirely serendipitous.

An excavation narrative

Some of the smaller spreads had rough edges and seemed to resolve into discrete features. Other larger ones had amorphous shapes without any discernible outline at this stage of excavation. Could these be kilns? Or waster pits? Or just piles of wasters and kiln rake-out dumped onto the existing land surface at that time? That is what we wanted to find out.

Trowelling over the spreads of burnt material dislodged from the ground large amounts of pottery sherds, which were bagged and labeled according to context. These were all provisionally dated to the 16th–17th century. The immense quantities of pottery these spreads contained meant that even just a few scrapes with the trowel produced enough pottery to fill large sample bags (Fig. 14.2).

Soon we were filling up not just sample bags, but also wheelbarrows, spacious containers, transit vans, and storage space back at the archaeological unit. Much of our on-site work consisted of the bagging up and labelling of pottery. The flow of pottery from below to above ground became a torrent, threatening to overwhelm other aspects of our work. Our site, a ceramiscene in the past, was clearly a different kind of ceramiscene in the present.

A larger and more elongated feature, assumed to be just another waster pit, was half-sectioned (Fig. 14.3, top). Fills consisted of burnt material that had been dumped in sequences of alternate black and red, black and red, black and red – perhaps raked out from successive firings of the kiln. These layers were crammed full of cinders and pottery wasters (Fig. 14.3, bottom). Particularly fine examples of Wednesbury ware came from here, including near-complete bowls and two-handled mugs, some black or brown in colour and others of a slightly redder glazed ware. An interesting aspect of these was that their very presence amongst all that waste material expressed a definite choice on the part of potters to throw them away. After firing, some pots had clearly been considered to be of sufficient quality and were retained, to be taken away and sold, while others were presumably identified as being flawed and were accordingly discarded. All the pottery vessels found here were broken, chipped or with some other fault, indicating their status as rejects.

We thought that the long oval pit was a discrete feature until the last stages of excavation of it, when narrow gullies running in/out of it at either end were discovered. At the higher northern end, there was a sharp vertical drop down from the



Fig. 14.2: Collection of pottery from the upper surface of pottery-filled layers or features (photo: M. Edgeworth).

base of the gully to the base of the pit at the point where the two features joined. The full significance of this was not understood at that stage, but only became clear later.

As excavation of the larger spreads of red burnt material continued, we began to realise that some of these formed a broad linear band running across the site from north-north-west to south-south-east, down the slope. It had never crossed our mind up to that point that this could represent the fill of a single unified feature. Something was pushing through into our awareness, emerging from the site itself – something huge and unexpected. Our interpretation of the site was about to change radically.

Many apparently disparate spreads and features suddenly joined up in our perception. It was like a gestalt switch. But rather than being a case of minds shaping matter, the deployment of a new conceptual model with which to look at the same material evidence, and resulting in a new way of looking at things, it was rather the other way round. The new material evidence emerging from the ground was re-shaping our perception and understanding of it, challenging existing assumptions and forcing our cognitive schemes to come to terms with fresh manifestations, emergent patterns, out there in the ground.

The evidence had emerged gradually, but the cognitive impact of it was more immediate. What suddenly became apparent was that there was a large filled-in



Fig. 14.3: Top: Investigation of what seemed at first to be a waster pit, but which turned out on excavation to be part of a larger linear feature. Bottom: pottery wasters in fill (photo: M. Edgeworth).

watercourse, previously unsuspected, running down the slope from north to south (Fig. 14.4).

We started trowelling over it to delineate its outline, and to dig segments through in order to establish its depth and the character of its stratigraphy. It varied enormously



Fig. 14.4: The ditch, only partially excavated, still in the process of emergence. Wednesbury Town Hall is in the background (photo: M. Edgeworth).

in width – in places just a narrow gully, elsewhere opening out into a wider channel or pool. Its fill was packed with ceramic waste material. The elongated pit with narrow gullies at either end, the half-sectioning of which was discussed earlier, could now be seen to be part of this watercourse.

In the middle of the site the channel broadened out to about 5 m wide, making it a very substantial feature indeed. A segment excavated through this widest part (Fig. 14.5) revealed that the ditch had been deliberately widened on its eastern side by the digging of a pit up to 14 m long, forming a large pool or tank – perhaps for some kind of processing of material connected with pottery production. It is likely that it



Fig. 14.5: Section through the ditch, revealing its alternate layers of red and black fill, packed with pottery wasters (photo: M. Edgeworth).

served as some sort of settling tank or mixing vat, where mixtures of clay and water could be refined to the right consistency in a variety of clay preparation processes.

An artificial, sudden drop in level, with the base of the feature on either side joined by a near-vertical face, had been created within this large pool. It became apparent that in fact there was a series of such descending levels or steps, regularly spaced, along the course of the watercourse as a whole. One of these drops had already been found at the upper end of the long oval feature, though its function as part of a larger water management system was not recognised at the time. It was beginning to become clear that a high degree of control had been exercised over the flow of water running down through the ditch. In all probability the artificial drops in level would have been associated with small sluice-gates, where flow could be turned on or off or otherwise closely regulated.

What we later realised is that the watercourse was actually a former town boundary ditch that delineated what was then the western edge of Wednesbury. A short stretch of it was found on an earlier watching brief about 500 m further to the north (Coates 2006), and the course could be projected through, running alongside and parallel to early streets once situated near the edge of town. Sometimes a narrow gully, sometimes widening out into larger pools, the ditch carried water down the slope to the river valley below. No doubt this convenient supply of flowing water was made use of by industry all the way along the course of the ditch. The pottery production site was deliberately located in that liminal zone on the edge of town, just inside the boundary, where it could take advantage of the ready water supply.

The slope of land is crucial. Note that if there had been no slope the water would have lacked force of movement. Gravity would have held it where it was instead of pulling it downhill. Without flowing energy the ditch would have been stagnant and effectively useless for industrial purposes. A reason why the water in the ditch could be so extensively made use of and controlled was precisely because it was flowing downhill.

The ditch and its pools or tanks on different levels were backfilled with waste from kiln firings during the 17th century. Alternate layers of black and red, just like in the smaller oval feature, indicated that the waste from many firings of a nearby kiln had been used. But before backfilling it had clearly been a functioning feature in its own right, with water flowing through it. The early fill crammed with pottery wasters was found to be cut by a V-shaped 18th century re-cut, the fills of which contained no pottery waste, indicating that the watercourse continued to flow in a limited way even when the larger part of it was infilled, long after the pottery production industry had ceased to operate here (Fig. 14.6).

This emergence of the physical traces of this substantial material flow, durable through time, running down and through the centre of the site, changed the



Fig. 14.6: Finding the base of the ditch. Note the smaller 18th–19th century ditch re-cut on the upper right of the section (photo: M. Edgeworth).

archaeological interpretation of it radically, and the mode of digging into it too. The unexpected manifestation of such a large feature forced readjustment of excavation strategies. The same goes for strategies for dealing with the unprecedented amounts of pottery that were coming from the bulk of the ditch-fills.

Just 8 m from the edge of the largest pool of the boundary ditch, traces of a pottery kiln survived as a roughly circular area about 3 m wide, though heavily disturbed in places by modern pitting, and with half of the feature inaccessible because bisected by the trench edge. The footprint of the kiln was formed in part by two very hard and compacted burnt clay natural layers, forming a saucer-shaped depression or hollow likely to have been formed by successive rakings-out of the kiln after each firing. These were not archaeological deposits as such: rather they formed the base of firm ground upon which the kiln was constructed. The bright red and orange colours of this burnt ground were caused by intense heat from the firing processes taking place in the kiln above. The hollow was filled by a layer of sandy silt and ash mixed with many fragments of broken pottery. This was probably part of the debris from the very last firing of the kiln, which was never raked out. Figure 14.7 shows the kiln in section while the visible half of it was being excavated.

Between the kiln and the ditch was a light greenish-grey silty clay layer containing large quantities of charcoal, ash and small pieces of coal. It had the mixed and dirty



Fig. 14.7: The kiln under excavation. The bowl-shaped depression forming the base of the kiln is visible in section (photo: M. Edgeworth).

appearance of being formed at least in part by 'trample'. The layer was up to about 30 cm thick and extended over an area of roughly 10–12 m². It was inter-bedded with the layers of ditch-fill and appeared to respect the area of the kiln, implying that the latter was still standing when the trample layer accumulated. On stratigraphic grounds, then, it seems to be contemporary with the last stages of kiln-use and the backfilling of the ditch with pottery wasters and other debris raked out of the kiln.

It was on removal of this 'trample' layer by mattock and trowel that a complex of beamslots, postholes, stakeholes, pits and gullies was discovered, which taken together with the kiln seemed to constitute some sort of workshop area for the pottery production process.

Postholes indicated the presence of an adjacent structure, or possibly part of the superstructure of the kiln itself. A group of 10–15 possible stakeholes was found nearby. In addition, two parallel beamslots spaced about 2 m apart were found close to the western side of the kiln, possibly the remains of the walls of some sort of built structure, or partitions within a building. Alternatively, if located outside as free-standing structures, these could have served as windbreaks – sheltering the kiln from gusts of air.

Cutting the beamslots and running along one side of this work area were a series of three shallow pits, all thought to have had some industrial function connected with the process of pottery-making, perhaps to do with the mixing of slip. These are not just waster pits, though they were used as such after they went out of use. Cut into clay, the sides and flattish bases of the pits were impermeable – ideal for retention of liquids or semi-liquids.

A gully ran off from the larger watercourse to bring water closer to this work area. It is interesting to note that this gully would only have filled with water when the large pool on the ditch was itself full of water.

Many of these features are clearly related to each other and to the kiln through their interconnected functions, some of which relate to the flow of water (Fig. 14.8). As well as spatial relations, it is apparent from the stratigraphic evidence that there was development of the working area and its structures through time, as some elements went out of use to be replaced by others.

Thus we were dealing with physical traces not just of a single unchanging taskscape of pottery production, but rather a changing taskscape, or perhaps a series of such taskscapes. Some elements (such as the kiln) remain a more or less constant feature throughout, while everything else changes at various speeds. The final phase of backfilling of ditches and demolition of structures – the putting out of action of formerly functioning structures and features – coincided with the last firings of the kiln. The kiln was probably the last surviving element of the pottery-making workshop complex.

There is of course a further taskscape in the series, and that is the archaeological excavation itself. The taskscape of past human activity only comes to light in the practical context of the tools and skills and processes of archaeologists at work – in *our* taskscape, so to speak. Or, to put it another way, the *ceramiscene* of the 16th and 17th centuries only emerges through the *ceramiscene* of excavation in the 21st century.

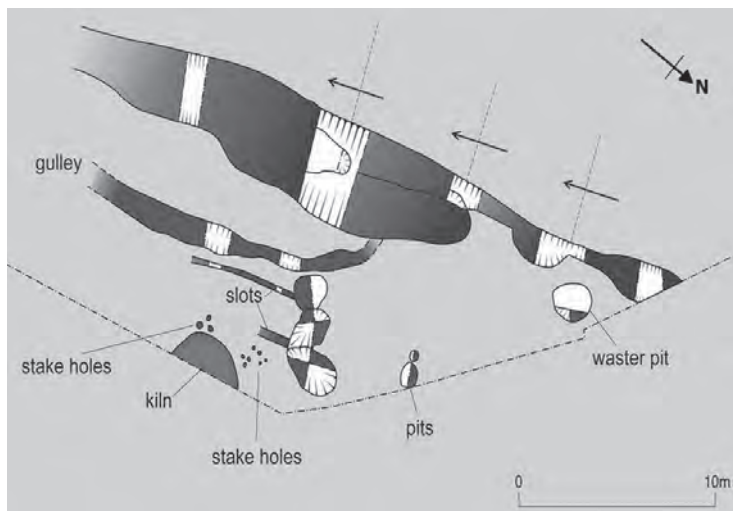


Fig. 14.8: Plan of 16th and 17th century features – traces of the past taskscape, flowscape and ceramiscene. Dotted lines indicate sudden drops in level of base of feature. Arrows indicate direction of flow (illustration: adapted from original by N. Dodds).

This means that we have to think of concepts such as taskscape and ceramiscene ‘(in archaeology)’ as intersections of past and contemporary working settings.

Figures 14.9 and 14.10 show the intermeshing of past and contemporary taskscapes. In Figure 14.9 archaeologists are following down the sides or cut of features with mattocks. Cuts are surfaces which belong to both the past taskscape of pottery production and the contemporary taskscape of excavation. That is, they were cut by human agents in the past and re-cut by archaeologists, who can follow them along. In this case the intermeshing of the two ceramiscenes or taskscapes is fairly exact.

It is also worth noting that the ‘trample’ layer which has been removed to reveal the features – as ground partially created through the activities of people in the past – inevitably gets mixed up with the trample of archaeologists themselves, even if the footprints and bits of mud dislodged from the soles of boots get carefully removed from the material field. This is most apparent in the next figure. The layer under the archaeologist’s boots is the 17th century trample layer which signifies the final phase of pottery production on this site, long with the demolition of structures and the backfill of features associated with it. But it is also, at least temporarily, the ground on which the archaeologist stands.

In Figure 14.10, two beam slots can be observed as dark straight linear features cut into the natural clay, running parallel with each other, from left to right. Numerous small stakeholes can also be seen. But these are only visible through the skilled trowelling of the smooth surface, accomplished in such a way that the soil boundaries show up clearly rather than being smeared or obscured, at a level neither too shallow nor too deep. Much the same applies to other evidence of past processes showing up



Fig. 14.9: Intermeshing of past and contemporary taskscape 1: following down cuts of features (photo: M. Edgeworth).

in vertical edges and half-sections. Far from consisting of the evidence of just one taskscape, then, there are actually two taskscapes rolled and merged into one.

Note that this is not a constructivist argument. It is undoubtedly the case that the past taskscape of pottery production pre-existed the taskscape of excavation, and constituted an independent reality quite separate from archaeological knowledge and practices. But aspects of this could only manifest as a contemporary phenomenon through merging with the excavation taskscape in the context of archaeological practice.

The same goes for past and contemporary ceramiscenes. The past ceramiscene consisted of the pottery production site that existed in the 16th and 17th centuries. It comprised built structures such as kilns, dug features such as ditches and pits, and huge amounts of material in the form of raw clays and flows of water, materials in process such as slips and glazes, finished pots and waste products. It had its own independent reality irrespective of how archaeologists and pottery specialists interpret it. But it can only be made manifest through a merger with the ceramiscene of excavation, consisting of all the archaeological procedures for dealing with the substantial amounts of pottery coming out of the ground.



Fig. 14.10: Intermeshing of past and contemporary taskscapes 2: feature outlines and worked surfaces (photo: M. Edgeworth).

Conclusion: on material force

Most excavation reports provide a summary of the totality of archaeological evidence discovered on a particular site, presented in order of date, starting from the earliest and ending with the latest – almost exactly the opposite to the order in which the evidence was excavated from the ground. The temporality of excavation is abstracted out, to be recognised in the processes of post-excavation analysis and writing-up, with evidence in the final text presented in chronological time rather than real time. Any sense of material unfolding through time, as a force (or set of forces) to be reckoned and wrestled with, tends to be erased.

This paper, however, is different. It does not attempt to do the job of a full excavation report. Rather it goes back to earlier stages of the archaeological process when the site was still unfolding in our perception of it, and there was some uncertainty about what we were about to discover. This is the archaeological ‘clearing’ where emerging/receding evidence can be followed along or tracked but not apprehended in its entirety (Edgeworth 2012; 2013). Without the benefit of post-excavation hindsight, we simply did not always know what was going to happen next. Things emerged out of the ground into the sphere of archaeological knowledge for the first time, unfolding gradually rather than appearing all at once in fully fledged being. There was a force to that

unfolding, impacting on interpretation and strategy, which had to be modified to take account of it. Though roughly anticipated, the specific manifestation of objects and patterns often took us by surprise, sometimes astonished us, radically contradicting preconceived ideas about it.

It is of course true that as archaeologists we play an active role in uncovering and shaping the emerging material, applying a form onto it. But there is also something coming through from the hidden depths of the ground, forcing its way into perception, shaping us and our ideas as much as we shape it. That material force has no name in archaeological terms (though see Olsen 2003), while Jane Bennett (2010) refers to it more generally as 'vibrant matter' or 'thing-power'. All too rarely acknowledged, it makes its presence felt on every site, and this one was no exception. In this case it took the form of the large watercourse running down through the site, and the substantial quantity of pottery wasters contained in its fills.

How did the emergence of this huge unanticipated feature and massive amount of material impact on the sphere of archaeological knowledge? First of all, we felt it in our arms, backs, shoulders and legs. The sheer effort of digging through the material – making sections, following along cuts and other soil boundaries, finding the base of the ditch, heaving out buckets, bags and trays laden with ceramics – left its mark in the shape and tone of our muscles. Such muscular conditioning is not just a matter of strength; it is also a matter of skill. Embodied knowledge resides as much in the muscles as in the brain and nervous system: it can be honed and sharpened through practice.

Second, as a corollary of the first, it must have changed to some extent the neural structures in our brains. That is, problem-solving skills were significantly challenged and presumably re-configured, though we are not talking here about purely mental abilities to deal with abstract or intellectual problems. For field archaeologists, problems arise and are solved primarily (though not exclusively) within the material setting of the taskscape of excavation (or indeed within the *ceramiscene*, comprised of material assemblages derived from excavation). On that shifting ground, there is no real distinction between mental and physical tasks. In our inhabitation of this practical and theoretical space, pitched against the force of emerging material, capabilities for dealing with difficult evidence were put into practice and materially transformed to some degree.

Third, as a corollary of the second, excavation and pottery processing strategies had to be modified to take account of unexpected material evidence. Digging and recording procedures were adapted to the task in hand. Sampling strategies were re-set. Time and budget and staffing schedules were changed. And so on.

Fourth, as a corollary of all the above, interpretation of the site changed radically. We had started out with a view of the site which emphasised the hot, dry process of pottery production, with the kiln at the epicentre of that. We ended up with the kiln radically de-centered, and a focus instead on the cold and wet aspects of making pottery, or at least on the transformation of fluid or semi-fluid cold and wet materials

to solid hot and dry ones. The flow of water through the site came to seem as important a material force as fire or the agency of people. Indeed, much of the past human agency was deployed in controlling, channelling and redirecting material flows that pre-existed the pottery-production site itself. Almost certainly, the main reason why the kilns were placed next to what we now know to be the town boundary ditch was to make use of the ready flow of water.

I call this a flowscape. I introduce the concept only to add weight to something that – while not exactly missing from the notions of taskscape and ceramiscene – might otherwise tend to be under-emphasised. To invoke a taskscape is to imply the application of skills, techniques, procedures, and so on, to materials or landscapes. The idea is heavily weighted in favour of agency of human beings (though plenty of attention is given to flowing materials in Ingold's work as a whole). Flowscapes on the other hand emphasise the agency of non-human things, like the water that once flowed through the ditch, powered by gravity (and ultimately the energy of the sun, which drives the hydrological cycle). In reality, of course, such material flows and energies get enmeshed with the human agency that seeks to control and make use of them. Taskscape, flowscape and ceramiscene are all ultimately interconnected aspects of the same inhabited landscape, changing through time.

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Chapter 15

Concluding remarks: landscape, taskscape, life

Julian Thomas

Introduction

It is fascinating to read Tim Ingold's reflections on writing 'The Temporality of the Landscape' (1993), more than 20 years after the event. His article was originally published at a time when archaeologists were vigorously debating the concept of landscape (see Ashmore and Knapp 1999; Bender 1993; 1998; Tilley 1994). Ingold shows how his reflections on landscape principally responded to developments within his home discipline of social anthropology, and yet he chose to present them in an archaeological journal. As Rajala and Mills (this volume) demonstrate, he found a receptive audience, and the notion of 'taskscape' that was introduced in the article has become a staple of archaeological investigation, as this book amply demonstrates. Yet Ingold now expresses reservations over his creation, and it has enjoyed comparatively less attention within anthropology itself. Why, then, do archaeologists continue to find taskscapes compelling?

In his contribution to this collection, Ingold shows how he originally distinguished between the restful vista of a traditional landscape painting and the turbulent activity of Bruegel's *Fight between Carnival and Lent*. While the former might be understood as something static, this could not be the case with the latter, whose multiple subjects were all engaged in *doing something*. That is, they were caught up in tasks or projects of one kind or another, and because of the way in which these activities responded to or intertwined with one another, they collectively formed a *taskscape*. However, it is important to recall that even in this initial formulation Ingold did not present the taskscape as an exclusively human entity. Rather, it was 'a resonating sphere of activity', which included phenomena ranging from non-human animals to the surges of the tides and the cycles of the weather. A taskscape, then, was a 'totality of rhythmic phenomena' (Ingold 1993, 163). Yet it is hard to describe the sun's shining, the swirling of the mist, or a plant's photosynthesis as 'tasks', and this may account for some of Ingold's retrospective discomfort. The taskscape idea attempts to capture a world in motion, but runs the risk of overemphasising the pre-meditated undertakings of human beings.

For the Ingold of the 1990s, tasks were ‘constitutive acts of dwelling’, which were to be distinguished from quantifiable labour (Ingold 1993, 158). That is, tasks should be seen as meaningful interventions that have a decisive role in the formation of a world composed not merely of material entities, but also of significance. These tasks are not carried out in isolation: people (and other beings) are mutually attentive, and monitor each other’s doings, so as to be able to respond to them. The constant correction, coordination and modification of tasks, and the anticipation of the acts of others, has the effect of drawing them into a mesh or web of practice. As Astrid Nyland (this volume) points out, this fabric, the taskscape, extends across both time and space. In his more recent work, Ingold substitutes the image of a ‘meshwork’, composed of a multiplicity of lines or paths that weave into each other or diverge (2007a, 80–1). These can be lines of growth, or of persistence through time, as well as of movement through space, reducing the danger of human exceptionalism implicit in the focus on ‘tasks’.

However, one of the great benefits of the notion of taskscape was that it encouraged a concern with everyday activities and routine undertakings (Edmonds 1997, 100). For archaeology in the 1990s this was especially salient, after a decade in which the discipline had been grappling with ways of addressing material symbols and ritual practice. A new focus on how the rhythms of tool use and manufacture, animal husbandry, horticulture, and the acquisition of materials meshed and dispersed spatially and temporally reinvigorated the archaeology of the quotidian. It also provided a new impetus for integrating different classes of archaeological evidence, which might otherwise be found sequestered in separate specialist chapters of publications. As Caroline Phillips (this volume) argues, taskscapes are composed of arrays of interrelated acts, and the mundane quality of many of these guarantees that they will have been reiterated on numerous occasions. It follows that their operation over time involves the gradual formation of patterns of habit and repetition, so that specific modes of conduct come to be associated with particular places at an unconsidered level. This is demonstrated in Astrid Nyland’s chapter here, in which stone quarries that had been frequented by mobile hunting bands in the Early Mesolithic continued to be used by more sedentary groups in the Late Mesolithic, even if this demanded extra effort. So taskscapes are not always governed exclusively by expediency and efficiency. Nyland’s point is that taskscapes embody and express collective values and norms as well as pragmatic concerns. Indeed, the two cannot easily be separated.

Why do archaeologists like taskscapes?

Part of Ingold’s original intention in 1993 was to emphasise that landscapes should not be understood as changeless objects of contemplation, but as fundamentally temporal phenomena. While he was particularly concerned with the doings of human beings, he none-the-less pointed to the way in which these are enfolded in a more

extensive set of rhythms and flows (Ingold 1993, 164). Landscapes are continually in motion, whether at the level of the advance and withdrawal of glaciers, the growth and decline of forests, or the seasonal cycles of vegetation and the migrations of animals and birds. It is for this reason that Killian Driscoll (this volume) suggests that landscape can be considered as something like a performance, a continuing process that is never completed. A landscape is never 'finished', so that one can simply stand back and admire it. Landscapes are forever remaking themselves, and so are the taskscape that are embedded within them, for they are the structured patterns of inhabitation, practices that respond to the cadences and cycles of the land just as they respond to each other (Ingold 1993, 153). Addressing an archaeological readership, Ingold suggested that the discipline should come to understand itself as the study of the temporality of the landscape, and its own activity as a continuation of the process of inhabitation. Archaeologists are dwellers.

At the time when Ingold was writing, archaeology had become especially preoccupied with the issue of context (Hodder 1986; 1992). It had long been recognised that what distinguished archaeology from connoisseurship, metal detecting or antique collection was the ability to place artefacts into a significant context, so that they might contribute to the understanding of a particular past place and time. However, the identification of artefacts as 'material symbols', and the exploration of post-structuralist and hermeneutic approaches to meaning sharpened this focus considerably. Rather than seeing the potential significance of objects surviving from past societies as arbitrary, limitless and indefinable, it was suggested that meaning is bounded within context (Hodder 1992, 12). That is, just as the meaning of a particular word may be ambiguous, but is clarified by the other words in the sentence or statement in which it is inscribed or uttered, so the potential range of meanings attributable to an artefact is narrowed by the context in which it occurs. 'Context' here includes the depositional context from which an item might be retrieved (a pit, a grave, a floor level), and the other objects found associated with it (a human skeleton, animal bones, a sword, a mirror), but also the chronological context, the typological context, the cultural context, and the spatial context. Through a process of 'thick description' (Geertz 1973), it might therefore prove possible to place the artefactual 'part' into the greater whole of a past cultural system (but see Barrett 1987; Johnsen and Olsen 1992; Yates 1990 for criticisms).

These developments raised in a chronic way the problem of artefacts recovered from surface collection, as opposed to stratigraphic excavation. How might they be contextualised? For some while, fieldwalking survey had been identified as a systematic means of investigating past human activity at the landscape level (Haselgrove *et al.* 1985). However, it was also recognised that the patterns of artefacts dispersed across the surfaces of ploughed fields had the potential to be used for more than simply 'finding sites', which might subsequently be subjected to excavation. Rather, landscape-scale distributions might provide insights into behaviour that could not be identified at the myopic level of the site. This approach was pioneered by Rob

Foley (1981, 78), who proposed an 'offsite archaeology' which attended to the spread and density of artefacts in areas remote from conventional sites. This problem was an acute one for Foley, whose work was concerned with early hominins in Africa, and which rarely involved orthodox sites at all. Following David Clarke's (1973) lead in identifying depositional and post-depositional theories, Foley set out to address the way in which objects were first deposited and then subjected to taphonomic processes, resulting in distinctive distribution patterns. However, Foley's treatment of the initial generation of the pattern concentrates on the notion of 'discard', with the effect that each object is identified as a discrete and separate entity. The consequence of this is that the *context* of the artefact can only be identified in environmental terms. Since no inherent connection between artefacts is acknowledged, each is evaluated principally in terms of the properties of the location in which it is discovered: soil type, hydrology, topography, potential access to resources. Inevitably, the behaviour in which the object was engaged comes to be assessed as a response to environmental forces.

As Rajala and Mills (this volume) point out, the way out of this impasse is to identify artefact distributions as being related to patterns of activity, rather than simply mirroring 'settlement patterns' containing sites of various kinds. But the problem remains one of understanding how scattered objects could be related to social and economic activities. This, I think, is why the concept of taskscape attracted immediate interest in the archaeological community. Taskscapes, obviously, are concerned with both materials and time, the essential currency of archaeology. Tasks are sequences of actions in which people generally employ material things, and in particular tools: hammers and hammerstones, spears and arrows, skinning-knives and cooking utensils. Further, the kinds of artefacts that are found dispersed across the landscape are overwhelmingly tools or the traces of their manufacture: pottery sherds, chipped stone tools, and lithic debitage. These are all equipment, *things-for*, and what connects them together is their common implication in a taskscape, a web of purposive and transformative actions.

But importantly, a distribution of sherds and flint flakes is not in itself a taskscape. They are what is left behind when the taskscape is no longer animated by task-ing. As Ingold (1993, 162) puts it, the forms of the landscape are generated in movement, but 'congealed in solid matter'. In other words, abandoned equipment becomes part of the landscape: the scree of axe-making debris that tinkles underfoot as one climbs up a mountain, the cache of ceramic wasters eroding into a stream-channel, the rusted cogs of colliery machinery. We might say that a scatter of artefacts represents the collapsed exoskeleton of a taskscape. At the risk of creating yet another unwelcome neologism, archaeologists concern themselves with 'artefactscales', the equipmental residues of taskscapes that are embedded in the landscape. They are no longer caught up in the tasks of the past, but their configuration provides us with clues as to what those tasks might have been. Even so, the evaporation of the past taskscape does not necessarily render its residue static and changeless. As an element of the

enduring landscape, it can be reworked: discovered and drawn into new projects, as well as transformed by the processes of erosion and decay. The cores, flakes and roughouts at a stone quarry can be knapped into new tools, centuries after they were abandoned. A heap of shattered pottery fragments can be cemented together to form a garden path. So the distinction between the formation of what we call the 'archaeological record' and its subsequent transformation is never a categorical one. The landscape is itself in motion, and provides both context and medium for the generation and transformation of new taskscape. Several of the chapters in this book have dwelt on the way that archaeology can evaluate the changing character of taskscape through time.

Lithic and ceramic taskscape

The taskscape approach has proved particularly well suited to the study of flaked stone assemblages. This is a result of the way that the processes of manufacture, use and repair are embodied in the substance of knapped artefacts as flake-scars and fractures. Lithic analysts have developed the *chaîne opératoire* as a means of identifying the sequence of acts that leads from the removal of cortex from a nodule of flint, through the preparation of platforms, to the removal of flakes and blades and the retouching of edges (Sellet 1993). These different stages of production make use of different techniques, and sometimes even different percussive instruments, resulting in distinctive waste products and traces of impact. Consequentially, it is possible to identify the processes of manufacture that have taken place at a given location, and in some cases these may be scattered across a landscape. The first acts of decortication and roughing-out may have taken place at a quarry site, while the pressure-flaking of projectile points may have occurred elsewhere, and the routine maintenance of hunting gear might have been a feature of a logistical camp where migratory game were awaited. Chantal Conneller (2000, 146) has shown how the *chaîne opératoire* can be placed in a landscape context, with the dispersed acts of lithic production and curation effectively constituting a taskscape. Moreover, she notes that knapping and its rhythms are bound in to a series of other practices, while it is the totality of these activities and their spatial distribution that fosters a community's relationship with their landscape. People might flake and haft arrowheads while sat around a hearth at a seasonal encampment, or travel in a gender or age-specific group to a quarry site, while telling stories or jokes. All of this contributes to the inconspicuous familiarity of pathways, places and landmarks.

In a similar way, Rajala and Mills (this volume) have introduced the innovative concept of the 'ceramiscene' to describe a 'ceramic taskscape', those aspects of a landscape that are related to the manufacture, use and discard of formed and fired clay. This obviously includes distributions of pottery sherds and roof tiles, but also elements of the infrastructure of ceramic production, ranging from borrow pits and sources of filler to workshops and kilns (Hamari this volume). Rajala and Mills point

out that potsherds and ceramic materials tend to account for the great majority of finds from Roman-period field surveys, but ceramics can also dominate other periods of the past. For instance, Douglass Bailey (2005, 5) has described the Neolithic of the Balkans as an 'age of clay', characterised not only by the introduction of pottery vessels, but also buildings with daub walls, and ceramic figurines. This constituted an entirely new built environment, transforming the grain and texture of everyday life. This prompts the observation that as history has proceeded, the primary enduring material components of taskscapes have repeatedly changed, from chipped stone to ceramic, metal and plastic. We should not expect taskscapes to manifest themselves in ways that are constant through time.

When Ingold says that a taskscape 'congeals' to form landscape, he arguably means that certain things have been 'set aside' and become part of the environment that we inhabit. But as he goes on to add, the consequence of that is that our perception of the landscape is an act of remembrance (Ingold 1993, 152). The landscape is composed of multiple superimposed layers: clapper bridges, isolated chimneys, overgrown furnaces, Roman roads, levelled field systems, roofless cottages, infilled quarries, ancient monuments. Moving through such a landscape means becoming familiar with its story, and the practice of landscape archaeology is an elaboration of the everyday skills of dwelling that this implies. Landscapes are accretional: they gather the traces of past activities, and become progressively more complex. As Anne Drageset (this volume) has it, they are path-dependant, and can rarely be 'reset' to a blank slate in the absence of some overwhelming environmental catastrophe. This reality lies behind John Robb's (2012) concept of the 'landscape of action', the historically established conditions (both material and non-material) that provide the foundations for social activity. The ways in which people encounter and understand the palimpsest of features amidst which they find themselves, formed by human and non-human agencies, provides them with both possibilities and constraints for future conduct. Thus a landscape that is already replete with field walls, droveways, canals and dykes will influence the way that future generations will move from place to place, even if they are in ruinous condition.

However, as Ingold pointed out, the landscape is never just a set of unconnected, self-contained objects, forming a kind of stage-set on which the action of social life is conducted. As he put it, the elements of a landscape 'enfold one another' (Ingold 1993, 154). That is, we encounter landscape as an interconnected whole rather than as an array of isolated entities. Or rather, when we notice a specific trackway, tree, house or fencepost, we do so against the background of the landscape as a whole. For not only is the landscape continually in motion, it is engaged with from a situated perspective (Ingold 1993, 155). Humans and other animate beings do not look down on the landscape from a privileged and distant viewpoint, as if perusing a map, from the outside. Instead, they occupy a specific location *within* the land. So although the landscape is experienced as an interrelated whole, this occurs through a sequential rather than a simultaneous perception. Thus, as they move across the

surface of the earth, living beings find that individual entities ‘detach’ themselves from the background and reveal themselves in series. So we gain our familiarity with our surroundings as a kind of narrative, which intersects with the temporal narrative of the landscape itself.

From taskscape to landscape archaeology

Ingold’s article emerged at a time when the concept of landscape was undergoing re-evaluation within a number of different disciplines (see Cosgrove and Daniels 1988; Hirsch 1995; Olwig 1993). In particular, it was increasingly argued that particular ways of apprehending the landscape were not natural and universal, but tied to the conditions of capitalism and the modern occident. Landscape as a commodity that could be readily bought and sold, and represented through the conventions of linear perspective, was linked with the emergence of an attitude toward worldly things that was at once disengaged and proprietorial. The modern west simultaneously converted the land into real estate, and depicted it in the form of maps and landscape paintings. This betrayed a ‘panoptic’ desire to reveal the world to simultaneous perception, order and discipline it (Foucault 1977, 202). When these arguments were applied to archaeology, the charge was that the discipline’s predominant ways of representing past landscapes (as maps, plans, distribution plots, aerial photographs, GIS and VRM) were anachronistic, decontextualised, and remote from the experience of past people (Thomas 1993). In this volume, Andrew Fleming argues that the pillorying of landscape archaeology from the point of view of what he characterises as ‘the re-humanisation project’ was unfair. There is much in what he says, but there are also aspects of his argument that I would want to resist. Fleming draws attention in particular to the twentieth-century British tradition of landscape archaeology (Aston 1985; Aston and Rowley 1974), and stresses that this was principally a means of acquiring empirical information about the successive phases of occupation of a region. This kind of landscape archaeology brings together field survey, excavation, documentary research and map study to create a particular kind of landscape history. However, I think it is fair to say that the critique that I and others offered was less of British landscape archaeology in particular than of the archaeology of landscape in general. By the 1990s ‘landscape’ had emerged as a privileged concept in the discipline, held in common by processual and post-processual, historical and environmental, theoretical and empirical branches of archaeology, and conceivably capable of integrating them. The intention of the critique was to draw attention to some of the under-acknowledged consequences of the widespread use of the term ‘landscape’.

This was not to deny the many achievements of an archaeology that operates at the landscape scale. From Stukeley and Pitt Rivers onwards, the benefits of looking beyond the excavation site and interrogating the relationships between a wide variety of features using multiple sources of information have been self-evident (Roberts 1987). However, it is arguable that such an approach shares with other forms

of archaeology an overemphasis on the global whole as opposed to the local and particular ways in which it is lived and apprehended. As Fleming implies, one strand of the questioning of landscape approaches in archaeology ultimately derived from Ian Hodder's critique of archaeological functionalism, which was principally directed at the New Archaeology (Hodder 1982, 5). Hodder had argued that the processual approach to past communities as homogeneous totalities engaged in adaptation to their environments resulted in a neglect of the internal dynamics of human groups. Issues ranging from agency, contradiction and ideology to gender, class and cultural identity therefore received little attention in the archaeology of the 1960s and 1970s. Hodder's intervention represents a singularly important moment in the development of archaeology, and its legacy in the subsequent development of archaeological theory is complex. In the first place, there has been an interest in identifying individuals in the past, and investigating the experiences and biographies of particular embodied persons (Hodder 1999, 25; Meskell 1996). This trajectory overlaps with approaches that have addressed personhood, and the diversity of ways in which 'being a human' has been negotiated historically and culturally (Brück 2001; Fowler 2004). Finally, there was a concern with 'totalisation' (see Foucault 1984, 89), the tendency in social analysis to emphasise the trajectory of the whole at the expense of internal relations. This has speculatively been related to totalitarian modes of thought, where the welfare of minorities and sub-groups is subordinated to what is presented as the greater good (Poster 1984). Not all of these perspectives were necessarily associated with an attempt to empathise with past people; more often, the intention was to emphasise the potential complexity and intricacy of the communities that we study.

What Fleming characterises as an imperative toward 're-humanisation' was therefore a complicated and heterodox development. 'Putting people back into the past' might involve the potentially narcissistic desire to identify people 'just like us', or a quest for interpretations that were not dominated by external factors such as climatic change, migration or 'cultural influence'. There is a sense, though, in which these arguments characterise a phase of disciplinary development that is now closed. Over the past decade, the drive to deal with human diversity in the past has been overtaken by a growing reaction against anthropocentrism and human exceptionalism (Olsen *et al.* 2012). Rather than active individuals, archaeologists are now often seeking to emancipate material objects, whose active role has often been neglected by social analysts. This 'post-human' direction is in some senses a continuation of what Fleming identifies as the 'personhood approach', which often rejected the notion that human beings have a changeless and fundamental nature that sets them apart from all other creatures. So-called 'flat ontologies' contend that humans are only one kind of entity alongside others, and should not be treated in any privileged way.

Fleming's principal argument is that it is inappropriate to criticise a traditional landscape archaeologist like Mick Aston for views that are actually characteristic of the New Archaeology. He is perfectly right to point out that Aston was neither a processualist nor particularly theoretically-minded. But it is arguable that British

landscape archaeology had something in common with processual archaeology, even if it was admittedly for entirely different reasons. The New Archaeology tended to emphasise top-down, system-level explanations, in which society, technology, population, vegetation and climate formed parts of a unified network (see, for example, Binford 1962; Clarke 1972). Traditional archaeology, and landscape archaeology in particular, was also preoccupied with totality, but not in the sense of any overarching system. Rather, because it was empiricist it sought to gradually accumulate as complete as possible an assemblage of archaeological evidence, of multiple kinds. Once this evidence was complete, the past would simply be known (Johnson 2011, 767). It was the processual generation of archaeologists who pointed out even if one did have a complete archaeological record, without adequate inferential tools one would still have no knowledge of the past whatsoever (Binford 1983, 21). Archaeological evidence and knowledge about the past are two different things; one cannot generate an understanding of past dynamics simply by observing statics in the present. It is probably a fair criticism that when I addressed the totalisation and panopticism of archaeological approaches to landscape, I did not explicitly distinguish between landscape-as-system and landscape archaeology as empiricism (Thomas 1993). What I was seeking to demonstrate was that both failed to 'people' their landscapes, and consider how they had been inhabited. Both addressed landscape from the 'outside', rather than imagining how they were negotiated from within, which is an interpretive task. But while systemic and ecological views of landscape often held the questions of human action and motivation to be superfluous, empiricist archaeologists generally maintained that they were beyond the interpretive competence of the discipline.

What archaeology is and is not capable of doing adequately is something that Fleming goes on to discuss. For him, our discipline is poorly suited to investigating the alterity of other cultures, or entering into 'past mindsets'. Although I agree with him on the latter point, it may be that what archaeology seeks to interrogate is not the contents of past minds, but the public world of social practices, and the relationships between people, animals and material things. These, too, may be dissonant with modern ways of doing things. And while historians and anthropologists may feel more at home in coping with 'otherness', in the case of prehistory at least, it is only we archaeologists who are in a position to evaluate the difference of the distant past. Fleming's argument that landscape archaeology is best positioned as an approach to long-term history is a good one, but the question is whether we are to be content with a history of things that have been 'done' to the land, or whether we should infer the agencies responsible for the processes of landscape change, at a variety of scales. While at one point I would have primarily emphasised humanity amongst these, I am now more willing to think of landscape as an *assemblage*, in which multiple kinds of entities have effects, even if only some of these are intended (see, for example, Bennett 2010). Seen in these terms, what needs to be put back into the archaeology of landscape is not just people, but life (Protevi 2012, 247). Fleming quotes me as stating that the approach that I advocate is not a complementary way of addressing

the same entity as the conventional forms of archaeological landscape analysis. My statement was probably not sufficiently clear: it was not the complementarity that I was disputing, but the object of analysis. Not an arrangement of physical objects in the present, but the living landscape of the past, which can only be addressed inferentially.

On one further point, Fleming and I are in firm agreement. While I acknowledge the usefulness of geographical information systems, I share his concern over computer-mediated relationships with landscapes in archaeology, and their potential for estrangement from the real world. A primarily visual medium which simulates reality cannot approach the authentic texture of 'being there'. Fleming is quite right that one of the great strengths of traditional landscape archaeology lay in grounding its insights in a protracted physical immersion in the field. There is no substitute for the gradual acquisition of familiarity with a place or a region, and the genuine affection for the British landscape that it generated amongst the practitioners of this school is to be lauded.

Beyond the taskscape

As we have seen, the taskscape concept has its drawbacks, and several of the contributors to this volume have suggested ways in which it might be extended or superseded. Tim Ingold hints that the concentration on 'tasks' is instrumentalist: people are not always engaged in activities that have a clear objective. He points to the man asleep in the Bruegel painting, and we could imagine a variety of other non-functional pursuits that contribute to the texture of human lives: admiring the sunset, talking nonsense, flirting, listening to music, smoking a cigar. None of these are strictly 'tasks', and some of them have no material outcome beyond the rather nebulous feeling of 'satisfaction'. Human life exceeds the taskscape. However, in her paper Arja Karivieri raises the notion of 'religious taskscapes', and it is likely that some religious 'tasks' might not be strictly functional in character. Equally, Tiina Äikäs suggests that some of the actors in Sámi ritual taskscapes might not be human, and might include sieidi stones. This prompts one to ponder again the parameters of the concept of 'task'. If people agree that a stone is performing a purposive and socially significant act, does this make it a task? Might a taskscape include entities that are understood as having efficacy, and to which people respond?

Anne Drageset (this volume) raises a further issue, when she introduces to notion of a 'powerscape'. If we follow Foucault (1978, 95) in seeing power as the potential for enablement and constraint that is immanent in all relationships, it would seem that any taskscape must be coincident with a network of power. The issue of power has been somewhat neglected by archaeology of late, and Drageset's paper is a welcome reminder that not all are equally free to act as they might wish. Matt Edgeworth's (this volume) illuminating paper shows how two different taskscapes, of past and present, intersect in the course of an archaeological excavation. Archaeologists in the field undertake a series of tasks (of shovelling, mattocking, trowelling), and in the

process the contours of past taskscape come into focus. But if two temporally distinct taskscapes can occupy the same space, can a single landscape host two contemporary, coincident and interpenetrating taskscapes? This might arguably be the case in parts of Australia, where aboriginal people and miners use overlapping areas of land in entirely different, and mutually incomprehensible ways (Strang 1999; 2001).

Ingold, however, would now hold that taskscape and landscape are the same thing, so the mutually exclusive patterns of activity exhibited by different groups of humans are aspects of the same landscape, the same totality lived and experienced from different vantage points. Tasks are not performed against the background of the landscape, they are the landscape. We have moved from human acts spread across a topography to the way that life goes on in a zone of interpenetration of earth and sky (Ingold 2007, 30). This is perhaps the space occupied by the Yardlee stone circle, described here by Gardner, Weston, Wood and Voelaar.

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